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ABSTRACT

This report contains the comprehensive, written self-assessments completed by 10 Minnesota tech prep consortia. The 1994-95 cohort of consortia was the second group to use the self-assessment. Within each tech prep consortium, the evaluation was completed by cross-district teams of teachers, administrators, and others who had been trained by the Minnesota Research and Development Center for Vocational Education. The summary is divided into four sections: curriculum and instruction, marketing, student assessment, and evaluation. Each section includes descriptions of the following areas: overall planning, staff development, special populations, curriculum integration, articulation, partnerships, evaluation, and retrospective. The report also contains the results of a brainstorming session in which participants shared successful and unsuccessful practices related to each section of tech prep. (KC)

Minnesota Tech Prep Consortia Evaluation System

1994/95 Cohort Self-Assessment Summary Report

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Section I

Minnesota Tech Prep Consortia Evaluation System

1994/95 Cohort Self-Assessment Summary Report

Introduction

Introduction

This report summarizes the comprehensive, written self-assessments completed by ten Minnesota Tech Prep consortia during the 1994/95 school year. This cohort is the second group of consortia to go through the self-assessment process, the results of the first group are described in a separate report (Minnesota Research and Development Center, 1995). The self-assessment forms an integral part of the Minnesota Tech Prep Consortia Evaluation System that has been designed by the Minnesota Research and Development Center for Vocational Education (MRDC). The MRDC is the independent, third-party evaluator of Tech Prep in Minnesota, under contract by Minnesota State Colleges and Universities. The self-assessment is completed by each consortium in its third year of implementation, two more cohorts are scheduled to follow in 1996 and 1997.

Within each Tech Prep consortium, the self-assessment was completed by cross-district teams of teachers, administrators, and others who had been trained by the principal investigators of the MRDC. The self-assessment instrument consists of a number of specific questions addressing four **Tech Prep Systems:**

- Curriculum and Instruction
- Marketing
- Student Assessment and Evaluation
- Support Services and Counseling

Each Tech Prep System contains seven **Tech Prep System Activities:**

- Overall Planning,
- Staff Development,
- Special Populations
- Curriculum Integration
- Articulation
- Partnerships
- Evaluation

Each of the four Tech Prep Systems also asked for retrospective thoughts about Tech Prep activities. For each cell of the resulting matrix of Systems and System Activities (see page 6), a consortium was asked to report on activities

relating to planning, implementation, and improvement, the three stages of the continuous improvement cycle.

The completed self-assessments were returned to the MRDC, reviewed for completeness, and content-analyzed to identify common and unique activities within and across consortia. A summary of responses across consortia was presented to representatives of the cohort who reviewed it for accuracy. Section II of this report contains a validated summary of this analysis.

Because the self-assessment system was designed to encourage continuous improvement, the review of the summary by cohort members was followed by a Peer Brainstorming Session conducted by the MRDC. The Tech Prep coordinators and members of the ten consortia, Tech Prep leadership at the State level, and MRDC staff participated in the session. The participants compared the status of Tech Prep activities within their own consortium with the aggregate findings of the Cohort Summary Report which served as a peer group benchmark. Participants then brainstormed and shared successful and unsuccessful practices related to each section of Tech Prep which had been evaluated. The results of this session are contained in Section III of this report. The consortium representatives also provided feedback to the MRDC on the self-assessment summary and reporting process. This information will be used to improve the format and process of analyzing and summarizing the self-assessment information.

The content of the self-assessments reflected the variance among consortia in terms of size, amount of resources, experience with Tech Prep, and number of related or unrelated events that occurred during the reporting period. Despite the required effort of selecting and training teams, collecting information on a wide variety of Tech Prep related topics, and preparing a comprehensive written report, the self-assessment process was perceived as highly useful by many participants. The self-assessment process served as a focal point for reviewing all Tech Prep related activities from a system-wide perspective.

As this report is published, the training for the next group, comprising six Minnesota Tech Prep consortia, is underway. Along with other initiatives, such as the frequent meetings of Tech Prep contact persons of all consortia in the State,

this report provides a means for sharing the expertise of this group of consortia, and for helping to guide the way for subsequent cohorts to build strong and successful Tech Prep programs throughout the State. For State-wide planning and assessment purposes, this report forms the first data point in a series of longitudinal, qualitative studies that will monitor the progress of Tech Prep implementation in Minnesota.

The Minnesota Tech Prep Self-Evaluation System

In the self-assessment, each consortium reported on the planning, implementation, and improvement activities related to Tech Prep for each of four Tech Prep Systems and seven Tech Prep System Activities. The resulting matrix is shown on the following page. Section II of this report summarizes the responses of the 1994/95 cohort across all ten consortia, and represents a summary profile or cohort benchmark. No single consortium is identified by name in this report. The page numbers printed in the matrix cells refer to Section II.

Reference:

Minnesota Research and Development Center, (1995). Minnesota tech prep consortia evaluation system: 1993/94 cohort self-assessment summary report. University of Minnesota, St. Paul, MN: author.

TECH PREP - FRAMEWORK FOR SELF-ASSESSMENT

		TECH PREP SYSTEMS			
		CURRICULUM & INSTRUCTION	MARKETING	STUDENT ASSESSMENT & EVALUATION	SUPPORT SERVICES & COUNSELING
	SYSTEM ACTIVITIES				
Retrospective	**Overall Planning** - Planning - Implementation - Improvement				
	Staff Development - Planning - Implementation - Improvement				
	Special Populations - Planning - Implementation - Improvement				
	Curriculum Integration - Planning - Implementation - Improvement				
	Articulation - Planning - Implementation - Improvement				
	Partnerships - Planning - Implementation - Improvement				
	Evaluation - Planning - Implementation - Improvement				

Section II

Minnesota Tech Prep Consortia Evaluation System

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Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Retrospective - **Overall Planning***

Planning

What strategies worked best during the overall planning process for implementing Tech Prep in the schools throughout your consortium?

Virtually all consortia emphasized the importance of broad stakeholder involvement to the success of planning efforts. The changing economic world heightens the need for business and labor involvement. One consortium sought to appoint a coordinator at each high school to facilitate involvement of all secondary and post-secondary faculty and staff.

Organization was seen as important, with central leadership being supportive rather than directive. Regularly scheduled meetings helped to keep the process moving. One goal mentioned was to achieve early victories to develop an atmosphere of success. Pilot programs were valuable planning and training tools.

Attitude was also reported as important. Having a strong vision, being flexible, listening, and being ready to innovate were cited as characteristics of successful planning teams.

What pitfalls would you caution a new consortium about when planning to implement a Tech Prep initiative?

Consortia frequently cited failure to set realistic goals, allow sufficient time, and assess school readiness for change as pitfalls. There needs to be recognition of the risk involved in change.

Some cited organizational problems, Tech Prep being subject to unstable funding for example. Several stressed the need for a common vision of Tech Prep, and not to position Tech Prep as focused on low ability students.

Implementation

What difficulties in implementing Tech Prep plans did you not anticipate and would revise if you had it to do over again?

Several consortia stressed difficulties with involving various stakeholders, such as business and the community colleges. Another theme was the resistance to applied academics and the associated tendency to label applied courses as being for low ability students. Finally, many consortia discussed problems with time, citing the need for time to undertake widespread systemic change, the problems associated with districts or schools being at different points in implementation, and the time to do the work of Tech Prep.

When implementing the total Tech Prep program, in what areas did you experience the least problems and why? (ex., curriculum, articulation, timelines?)

Most consortia agreed that the articulation process proceeded well. The technical college staff and faculty are supportive of the process, and the task of articulation fosters better communication and networking between secondary and post-secondary faculties. Some reported that curriculum integration works well, especially with the mini-grant, pilot process. Employing standard curriculum materials, like CORD, is useful. One consortium singled out the consortium structure itself as useful. In this case the members had been successful with previous joint efforts. Several noted that exchanging visits with business and industry was a useful process.

Continuous Improvement

In which areas of activity during the implementation of Tech Prep did your consortium make the greatest improvements? Why?

Most consortia singled out the articulation process as the most successful, with its attendant improvements in communication. Others mentioned course integration and the associated team teaching, the marketing process, and the general acceptance of the Tech Prep vision. One consortium reported great improvement in the career assessment process, an area most consortia mentioned as needing more improvement.

In which areas of activity during the implementation of Tech Prep does your consortium need to make the most improvement in the future? Why?

Many consortia listed the development and implementation of applied courses as needing more improvement, as well as the career planning and assessment process. Several cited specific areas within the general theme of school-to-work

processes, including apprenticeship programs, and worksite education. Some mentioned the related need to work more closely with business, industry, and labor.

A second focus area for improvement was extending the Tech Prep concept to relationships with four-year colleges and the community colleges; it was also mentioned that there was need to do a better job of communicating to parents the value of two year technical career programs.

Finally, one consortium reported the need for improvement of the assessment of student performance.

Minnesota Tech Prep Consortia Evaluation System
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Tech Prep System - ***Curriculum & Instruction***
System Activity - ***Overall Planning***

Planning

Describe the mechanisms you planned for implementing the Tech Prep curriculum and instruction goals from your consortium's original strategic plan (e.g., committees, planning groups)?

Describe the overall goals, activity plans, and timelines with which you charged personnel assigned to develop the Tech Prep curriculum and instruction during the project.

All consortia accomplished planning for Tech Prep curriculum and instruction through Steering or Executive Committees and, in many cases, a committee structure consisting of implementation committees, sub-committees, and task forces. Those committees typically represented a broad coalition of Tech Prep stakeholders, ranging from district-level administrators, teachers, and counselors to business and industry representatives and community leaders. The committees typically conducted a series of meetings with local representatives to assess school level and district level needs and resources. There was an emphasis to incorporate the consortium-wide strategic plan to the extent possible while allowing enough flexibility at the local level. Two consortia sought guidance from Tech Prep implementation models in other states, namely Oregon, Massachusetts, and Kentucky. One consortium examined the European apprenticeship model and another sought to tie Tech Prep to a four-year youth apprenticeship program. One consortium used CORD materials for assessment and development of curricula.

The ten consortia unanimously focused on the development and implementation of articulated, applied, and integrated curricula that were oriented toward providing applied academic skills and meeting current labor market needs. There was a strong emphasis on cooperation with the business community in designing courses, as well as on accountability through outcome-based approaches and the implementation of more rigorous and relevant learning. Several consortia mentioned the desire to reduce curricular overlap and to develop an effective information advisory system for students, parents, and the community. In general, the implementation time lines were left flexible to respond to the needs and time and resource constraints of local districts.

Implementation

Describe how the mechanisms, goals, activity plans, and timelines for Tech Prep curriculum and instruction were put in place among the institutions within your consortium?

The role of consortium leadership in driving implementation of curriculum and instruction at the district and school level ranged from a hands-off policy that left local districts and schools with a large degree of autonomy to tailor implementation to their specific needs and the resources available, to a more centralized role whereby the consortium actually prioritized the development and implementation of applied academic courses. In all cases, however, the consortium was instrumental in providing information about available resources, organizing workshops, providing an up-link to the Minnesota Department of Education, providing staff and curriculum development, and, in some cases, even providing grant opportunities and instructional resources. At the local level, there are, in most instances, contact people identified who carry responsibility for instructional and curriculum development. This task is carried out by teams or committees; one consortium reported having contracted with a number of teachers to lead the curriculum effort. The schools and districts used a variety of resources to drive curriculum development and instructional design: inservice training and education took place in some cases, as did attendance at regional, state, and national conferences. Some districts visited out-of-consortium schools, others invited nationally known speakers on the topic. Many districts made use of third-party materials, such as those available from CORD (Center for Occupation Research and Development), PAVTEC (Portland Area Vocational Education Consortium) Federal Model, or AIT (the Agency for Instructional Technology). By now, all consortia have a process established by which to prioritize curriculum development, and all have some courses which are articulated across levels. Tech Prep courses and curricula are either purchased, developed in-house, or consist of team-taught units or new units within existing courses. In general, the pace of curriculum and instruction implementation is dictated by the availability of dedicated resources in terms of staff, funding, and space. One consortium reported the development of a new Tech Prep lab, and plans to refurbish all existing high school labs into Tech Prep labs.

Continuous Improvement

How were you able to determine if the mechanisms, goals, activity plans and timelines set for the Tech Prep curriculum and instruction were reasonable; what data did you collect?

How are you using this information to develop new or revised overall goals and strategies for implementing the consortium's Tech Prep curriculum and instruction?

Data collection efforts ranged from informal "pulse-taking", like feedback from meetings and "sense of the staff", to more formal measurement efforts, including

the number of courses implemented, staff trained, students enrolled, use of library materials, and so on. Mechanisms included observation, survey, student focus groups, and teacher surveys.

Improvement efforts included modifying goals (focus on delivery of service), modifying data collection efforts, and improving instructor preparation through inservice and externships with business.

Minnesota Tech Prep Consortia Evaluation System
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Tech Prep System - ***Curriculum & Instruction***
System Activity - ***Staff Development***

Planning

Describe the process your consortium used to determine staff development needs for addressing Tech Prep-related curriculum and instruction issues.

Describe the staff development activities your consortium planned to address Tech Prep-related curriculum and instruction issues.

Most consortia viewed staff development for curriculum and instruction to be driven by the curriculum implementation process. While there were some special concerns, such as learning to use coursebuilder software, generally consortia intended to use implementation teams to develop curriculum and put it in place. These teams would learn by doing, and then share what they had learned as the process grew. Several consortia used a mini-grant-writing process to develop team plans and allocate resources to these pilot projects. Consortium steering committees could then observe these pilot projects and determine the staff development needs of the pilot teams, planning to meet the same needs in the wider implementation. A second process common to several consortia was to look to the steering committee or Tech Prep coordinator to identify the goals of Tech Prep within the consortium, and to clarify the values that would guide implementation. A common result was to recognize the need to provide training to familiarize the entire district staff with Tech Prep, not just Tech Prep staff. A third process was to plan to work with and build upon the work of staff development resources in place within the consortium, one example cited being the HRD Committee at the Technical College.

A key activity planned in most consortia was the use of workshops/inservice. Some workshops would focus on developmental needs, like teaching styles; while others would focus on curriculum issues, like examining CORD materials. A second key activity, discussed further in 'Partnerships', is cross visitation of Tech Prep staff with representatives of business and industry. Lastly, most consortia encouraged staff to participate in regional and national workshops, in order to develop a 'big picture' of Tech Prep.

Implementation (What was actually done?)

Describe the staff development activities your consortium conducted (provided) to implement Tech Prep curriculum and instruction during the project.

Virtually all consortia actually conducted workshops as planned. One typical consortium structured workshops to: mix participants (for example, sometimes post-secondary and secondary staffs would meet together, at other times separately), rotate sites and times, use train the trainer approaches, and to have vendors lead workshops concerning commercial materials. Typical developmental workshops were led by academics with expertise in the content area. Many workshops focused on more technical issues, like examining the SCANS material for guidance in curriculum planning. Some consortia reported developing videos for use in workshops.

Site visits by Tech Prep staff focused on visiting businesses, other Tech Prep sites, and other relevant developments like career academies. Frequently, consortia reported that business representatives in turn visited the schools. One consortium reported holding workshops concerning useful math and communication applications led by business and industry representatives.

The Tech Prep coordinator's activities were seen as central to staff development. Coordinators stayed available to implementation teams and individual staff members to assist with problems. One consortium reported that the coordinator repeatedly visited new sites as they implemented new courses and curriculum. These visits contributed to staff morale and provided an opportunity to discuss specific issues (see Special Populations for example).

Continuous Improvement

How were you able to determine if the Tech Prep curriculum and instruction staff development activities were successful; what data did you collect?

How are you using this information to develop new or revise staff development activities for implementing Tech Prep curriculum and instruction?

Most consortia reported a variety of informal data collection efforts aimed at answering whether their staff could implement Tech Prep curriculum and instruction. These included informal staff surveys, and observation of participation in meetings, based on the idea that the depth and quality of questions asked could be a gauge of understanding. Some sites tracked the requests for follow-up information after meetings, or the level of use of library materials. Feedback was sought from a variety of stakeholders (see Partnerships), including students, parents, and instructors.

More quantitative approaches included tracking the number of applied courses, tiered applied courses, and enrollment levels and patterns in those courses. Most consortia reported collecting attendance and assessment sheets for each workshop. One consortium reported using follow-up information to move away from or improve upon self contained curriculum materials like CORDS and AID. Most reported the need to simply do more of what has been planned - more business visits, more inservice on applied curriculum, and more use of experienced staff to train, support, mentor, and coach others. Consortia generally reported that administrative support for Tech Prep activities is critical, and that guidance counselors need an updated understanding of Tech Prep. Many consortia reported identifying needs that have not yet been met, including coordination of Tech Prep with member schools, pursuit of system wide development, staff development for new people joining in the middle of the project, and better use of performance based assessment.

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Tech Prep System - ***Curriculum & Instruction***
System Activity - ***Special Populations***

Planning

Describe how your consortium planned curriculum and instruction strategies for the inclusion of special populations in your Tech Prep programs.

Describe the curriculum and instruction approaches your consortium selected to provide for the inclusion of special populations in your Tech Prep programs.

One consortium reported involving a pre-existing Transitions Committee from each school to coordinate planning, while another planned to include representatives from special populations in the planning process (teen parents, for example). Many consortia plan to use IEPs for tracking and follow-up, and to provide special inservice for counselors. Others reported an identified need to use a variety of instructional delivery systems to meet the needs of special populations. Some of those using mini-grants required consideration of special populations in mini-grant proposals.

Implementation (What was actually done?)

Describe how the selected curriculum and instruction approaches for the inclusion of special populations in Tech Prep programs have been implemented throughout your consortium.

Consortia reported that they have targeted special populations for more attention from guidance staff, hired non-traditional staff (e.g. females in industrial technology), implemented interdisciplinary teaching (e.g. special ed. and mainstream teachers), reviewed courses for equity, tested for and delivered developmental math instruction, and made special populations a point of discussion during coordinator visits.

Many consortia followed the idea that hands-on instruction works well for special needs students, but are concerned not to label Tech Prep as special education. Rather, all students should be included in Tech Prep opportunities, and course integrity must be maintained.

Continuous Improvement

How were you able to determine if the selected curriculum and instruction approaches led to the inclusion of special populations in your Tech Prep programs? What data did you collect?

How are you using this information to improve curriculum and instruction for the inclusion of special populations in your Tech Prep programs?

Consortia reported monitoring IEPs, the level of special population enrollment in technical college cluster courses, the number of students in non-traditional areas, and improvements in the grade point average.
Some directly monitored success of special populations in terms of number enrolled, using as sources the HS follow-up, Perkins application, and MNCIS.

Areas identified for improvement included the need to modify courses, and the need to improve coordination with the technical college equity coordinator.

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Tech Prep System - ***Curriculum & Instruction***
System Activity - ***Curriculum Integration***

Planning

Describe the planning process your consortium used to address the need for integration of academic and vocational course content in the Tech Prep programs.

Describe the methods and procedures your consortium selected for integrating academic and vocational content in Tech Prep curriculum and instruction.

One consortium conceived curriculum integration to happen in levels: projects, units, courses, and so on. There was concern expressed that courses go somewhere, that is lead to a degree. Consortia planned to identify core curricula in clusters. One planned to start with apprenticeship curriculum. One consortium saw integration as driven by secondary /post-secondary cooperation, while others focused on service learning, applied learning, work readiness, use of standards like SCANS and the MN graduation rule, and applied academics in 9th and 10th grades. One consortium identified planning for curriculum integration as the Tech Prep coordinator's task.

Generally, piloting and replication were key strategies. This approach avoids large scale mistakes, and lets teachers become resources. Other strategies included using mini-grants, using technical college instructors as advisors, and teaming of vocational and academic instructors.

Implementation (What was actually done?)

Describe how curriculum integration was implemented in the schools throughout your consortium.

Implementing curriculum integration was often hand-in-glove with related methods like team teaching. One consortium found the ALCs were adapted to integration since the schedule and curriculum were more flexible. Depending on factors like staff readiness, the depth and breadth of the integration progress varied across schools within the consortia. Consortia reported implementing applied curricula in all schools in areas like math, communications, principles of

technology, biochemistry, work readiness, and communications. A goal was to identify skills students need to learn at one level in order to succeed at the next level.

A key method was team teaching, using partnerships like math with industrial technology, physics with technology, English with keyboarding, and English with technology. One consortium reported requiring all 9th graders to take one course in future technology. In many cases school-level implementation controlled timing. Consortia reported developing Tech Prep magnets, one reported having plans for an entire Tech Prep school. Tech Prep was often related to four year apprenticeship and other school-to-work transition programs.

Continuous Improvement

How were you able to determine if the curriculum integration approaches you chose were appropriate for the integration of academic and vocational content in your Tech Prep programs? What data did you collect?

How are you using this information to improve curriculum integration in your Tech Prep programs?

Consortia monitored student requests for tiering, the number of courses integrated, the level of enrollment, and student achievement. Informal feedback included improved communication between students, parents, and instructors. Some recognized the need to start measuring post secondary aspects.

Information about success stories was shared within one consortium to promote interest and enthusiasm for Tech Prep in general and curriculum integration in particular. There was some discussion of innovations like career academies. Recognized areas for improvement included ways to overcome barriers to team teaching, and inservice on alternative assessment. Generally, the barriers reported were time and money and the need reported was to expand what consortia were currently doing.

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Tech Prep System - ***Curriculum & Instruction***
System Activity - ***Articulation***

Planning

Describe the process used to plan curriculum articulation across secondary and post-secondary institutions in your consortium?

Describe the articulation strategy your consortium selected to address curriculum articulation within the Tech Prep programs.

Consortia plans included developing a simplified articulation form, and focusing on teacher level agreements. Consortia planned to pre-set a level of agreement between both content and outcomes in order for courses to be candidates for articulation, and some expected that the college would train the secondary level on how to meet the rules (80% overlap, for example). Some planned to use more than one high school course to articulate with one college course.

A common plan was to have all agreements include a sunset provision. Some consortia planned for learner outcomes and authentic assessment in articulation agreements. Some planned to rely on teamwork in integration efforts to foster articulation. In some cases secondary and post- secondary faculty jointly reviewed each other's curriculum. Some developed a matrix of course requirements by cluster.

Implementation (What was actually done?)

Describe how Tech Prep curriculum was articulated across secondary and post-secondary institutions in your consortium.

Consortia reported that faculty were able to discover agreement or modify objectives in order to reach agreement. Some reported vertical and horizontal articulation within a technical college and among colleges, including four year institutions, such as Bemidji State, UM-Crookston, and Moorhead State. Consortia reported developing advanced standing agreements, and inter-college agreements among the technical colleges, evidence that Tech Prep was having an impact on the post secondary level, including community colleges and private technical colleges. One consortium reported that a technical college would do introductory courses for delivery by ITV.

Materials reviewed as part of the articulation process included course descriptions, goals, and texts and references. Outcomes included certificates for advanced placement or credit, and the identification of prerequisites. Some had developed a checklist to guide the articulation process.

Continuous Improvement

> How were you able to determine if curriculum articulation between secondary and post-secondary institutions was successfully implemented in the schools in your consortium? What data did you collect?
>
> How are you using that information to improve curriculum articulation in your Tech Prep programs?

Data collection included the number of articulation agreements, the level of enrollment, the number of certificates, and Tech Prep certificate growth. One reported a plan to gather baseline data on post secondary enrollments, others planned to survey instructors guided by key measures from the strategic plan, and to gather employer and student reports on curriculum effectiveness.

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Tech Prep System - ***Curriculum & Instruction***
System Activity - ***Partnerships***

Planning

Describe the planning process you used to insure the participation of the full range of stakeholders in the design of Tech Prep curriculum and instruction.

Describe the major components of your designed plan to ensure that important stakeholder groups were involved in the selection or development of Tech Prep curricula.

A common theme was recognition that there may be different stakeholders at each of the consortium, district, and school levels. Consortia reported that partners were given special projects and assignments to focus their participation, secondary and post secondary students were included, teacher engaged in externships, and the leadership emphasized the value of partnerships. Planning focused on ways to involve local forces: agriculture, business and industry, labor, parents , students, teachers, and administrators. One consortium reported reciprocal bartering with some stakeholders (materials for training). Some tied workplace learning to Tech Prep.

Implementation (What was actually done?)

Describe how stakeholder groups were involved in designing or selecting Tech Prep curricula in the schools in your consortium.

One consortium reported surveying employers concerning SCANS requirements, not just taking them as is. Several consortia reported using SCANS to identify skills, and using partnership groups to designate target clusters. A frequent practice was to have teachers meet with local businesses.
Consortia leadership held discussions with special population representatives, parents, and student focus groups to design curriculum implementation.

Continuous Improvement

How were you able to determine whether the participation of stakeholders in the Tech Prep curriculum design process was successful? What data did you collect?

How are you using this information to improve the participation of stakeholders in the future revision of Tech Prep curricula?

Consortia reported that partners took ownership and are interested in more classroom involvement and mentoring. Most reported a sense of broad based support. Data collection included minutes of partnership meetings.

Some specific changes were to alter the time of day for meetings to meet the scheduling needs of business members and others, and changing types of implementation processes. One consortium found that they should improve work based training, another felt they should form a Business Advisory Group as a subcommittee of the Local Quality Council. One consortium reported it was hard to get participation because of geography and the pace of changes, so they could only expect sporadic involvement.

Areas for improvement reported include the need for data concerning the actual value of Tech Prep, and the need to disseminate more information to parents.

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Tech Prep System - ***Curriculum & Instruction***
System Activity - ***Evaluation***

Planning

Describe the process your consortium used to plan for the assessment of Tech Prep curriculum and instruction?

Describe the processes developed by your consortium to evaluate the adequacy and appropriateness of the Tech Prep curriculum and instruction.

One consortium hired a consultant, and developed working definitions of applied learning and a global view of integration against which to measure outcomes (based on the work of Dr. Willard Daggett). Other consortia reported linking Tech Prep assessment to other plans, for example to North Central accreditation, or district strategic plans.

One consortium planned for assessment to be coordinated by the technical college. A concern was to make all instruments user friendly. One suggested that identifying successful completers would be the best indicator. Another suggested that assessment be tied to technical college performance and graduation.

Implementation (What was actually done?)

Describe how these assessment strategies were implemented in the schools throughout your consortium?

Very little detail was reported concerning actual assessment activities. Data collection included pre and post interviews of students, and the use of standardized data collection like the HS follow-up.

Continuous Improvement

How were you able to determine whether the curriculum and instructional assessment approaches you implemented were successful? What data did you collect?

How are you using this information to improve the assessment of Tech Prep curriculum and instruction throughout your consortium?

Consortia reported using student surveys and focus groups, one secondary result being that students are pleased to be asked. Other data collection included survey of teachers and survey of administrators. Data used include number enrolled, courses maintained, credit granted, student success, and student placement. One consortium said that its role was to set the model, and to leave data collection to the school level. Some consortia reported data collection to include the number of agreements, number of AP credits, and the degree of adoption of applied academics.

Some consortia reported as a consequence of assessment the effort to move away from, or to redefine and refine standard curricula, e.g. CORD or AID.

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*Retrospective - **Curriculum & Instruction***

Planning

What planning processes worked best for your consortium during the planning phase of designing Tech Prep curriculum and instruction?

Best planning practices included attending national meetings, coordinator visits, informal work with stakeholders, early stakeholder involvement, setting clear goals, having a vision of Tech Prep, getting public support early, and getting inside support.

Based on your experiences, what pitfalls would you caution a new consortium about when planning Tech Prep curriculum and instruction?

Consortia recommended not to push the vendor materials, and to get more than just interest from stakeholders. One suggested the need to recognize that it was not automatic that teachers were actually able to deliver instruction in this environment. There was a need for patience. Barriers included the lack of parental interest, and a lack of resources.

Implementation

When implementing Tech Prep curriculum and instruction, in what areas of activity did you experience the greatest successes (ex., coordination, articulation, timelines)? Explain why you think this occurred.

Consortia reported that articulation brought mutual respect and was good marketing. Integration needed time and money, and it was important to establish the need and desire for the program. One consortium reported that an applied workshop for teachers held at the technical college was a model for the program itself. Consortia reported the need for inclusive curriculum, and for funding of cornerstone courses. It was important to involve parents and to do business visits and other forms of school-community communication. In the classroom, students found successes in a hands-on environment. One consortium counseled to ignore the naysayers, and to focus on those ready and willing to do the work. Many recommended to do articulation first. It was the least expensive, there was the

least resistance, there was is student acceptance, and it was is a good way to establish networks between secondary and post-secondary levels.

Please describe the three of four greatest difficulties you have encountered in setting up curriculum and instruction for Tech Prep programs?

There was a need for improved career counseling. Consortia reported the need to educate the public that not everyone needs a college degree. There was uniform agreement on the lack of time and money. There was a need for improved teacher preparation. One reported that other programs got in the way . There was concern over the idea of tracking. There were turf battles, and a lack of acceptance by academic staff. Some consortia reported turnover on committees creating difficulties with continuity of effort. Again, it was easier to focus on articulation than on integration.

Continuous Improvement

In which areas of activity during the implementation of Tech Prep curriculum and instruction did you experience the greatest improvement? Why?

Consortia reported that hands-on learning excited students, that employer involvement in curriculum issues was useful, and that the assessment process was getting deeper and more profound as its value became clearer. Teachers had the most success with team teaching, and hands-on instruction.

Describe the areas that were the most difficult to improve in the development of Tech Prep curriculum and instruction in your consortium and explain why you think they were?

When Tech Prep courses were taken by 9th & 10th graders, they could not get AP credit. Consortia reported in as many ways as possible that time and money are key constraints. There was a need for money for applied materials. Geographic coordination was difficult in rural areas. It was also difficult for small communities to get business involvement on teams, and to provide experiential education. opportunities. Some consortia felt they were too large.

Teachers needed common prep time to work on integrated curriculum and team teaching. There was some difficulty implementing cooperative learning, some students had trouble with teamwork. There was a problem with the acceptance of integration by staff, with issues like turf, a concern over the potential for watered-down curricula, a concern about ending up with only low-ability students, and concern over students who were not used to the challenge. Scheduling of work based components could be troublesome. There was concern over a perceived lesser value of a two- year degree, and that Tech Prep not get labeled as just for

low ability students. There was a lack of career development curricula. There was a lack of statewide uniformity on articulation with MN graduation rules, no clear definition of Tech Prep, and the required reporting system took too long. The entire program was seen as very dependent on funding.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Tech Prep System - **Marketing***
*System Activity - **Overall Planning***

Planning

Describe the mechanisms you planned for implementing the Tech Prep marketing goals from your consortium's original strategic plan (e.g., committees, planning groups)?

Describe the overall goals, activity plans, and timelines with which you charged personnel assigned to develop Tech Prep marketing during the project.

All consortia accomplished planning for marketing Tech Prep through a steering committee or similar team structure at the consortium level. This committee developed the vision, implementation timelines, and general marketing plans for the consortium, but typically left the individual district or schools ample room to modify and tailor the plan to their individual needs. In the majority of cases, the marketing plan was developed in cooperation with the districts, business and industry associations, such as the Chamber of Commerce, and the community at large. Some used available federal models, such as PAVTEC, for guidance. In general, the goal of the marketing plan was to inform the larger community of the value of Tech Prep and its opportunities for students, to present Tech Prep as a viable alternative to traditional four-year degree programs, to disseminate information about Tech Prep, and to recruit qualified students into the program. One consortium set the time line for implementing a viable marketing strategy at three years.

Implementation

Describe how the goals, activity plans, and timelines for marketing Tech Prep were coordinated among the institutions within your consortium?

Consortia implemented their marketing plans in a fairly uniform fashion. All consortia developed and distributed a variety of promotional materials, such as brochures, newsletters, program guides, folders, pencils, banners, and individual Tech Prep logos. They also made use of the mass media through advertisements and articles in local newspapers and radio stations. Several

consortia produced a video, and one organized a Tech Prep Resource Library. Marketing to the public was done typically through presentations, career days, and open houses. Internally, there were presentations to students, inservice training for counselors and teachers, consortium-wide sessions and meetings, and exchange with members from other consortia. A particular emphasis was put in placing Tech Prep in the context of a changing world of work and jobs of the future that will require a different skill set. One consortium coordinated its marketing with the local technical college, another conducted student focus groups to communicate the idea of Tech Prep and generate ideas for marketing and promotion.

Continuous Improvement

How were you able to determine if the mechanisms, goals, activity plans and timelines set for the Tech Prep marketing were reasonable; what data did you collect?

How are you using this information to develop new or revised overall goals and strategies for implementing the consortium's Tech Prep marketing?

Most consortia relied on informally attained feedback as the primary means of determining the need for revising marketing materials or ascertaining the impact of their marketing implementation. This feedback came from a variety of sources: peers, staff, students, business and industry, and the community. One consortium used a formal survey of inservice teachers and another used focus groups to obtain feedback. Several consortia mentioned the state-wide data gathering instruments, such as the Consortia Self-assessment process and the Tech Prep Identifier Form as important input. One consortium formally tracked program participation data, the number of new programs, and the degree of financial support obtained, and used this information to assess the effectiveness of its marketing effort. The feedback was used primarily to revise marketing materials and to assess the effectiveness of the marketing strategy. Other consortia mentioned the benefit of sharing marketing materials and strategies with other consortia. Several consortia addressed the need for marketing to be continuous and ongoing, with input from a broad array of stakeholders, and the need to disseminate marketing information to a broad audience in order to obtain feedback and new ideas.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Tech Prep System - **Marketing***
*System Activity - **Staff Development***

Planning

Describe the process your consortium used to determine staff development and training needs for marketing Tech Prep in your consortium's schools.

Describe the staff development activities your consortium planned to deliver staff development for marketing Tech Prep programs.

Planning for staff development in marketing Tech Prep was done at the local or district level in all but two consortia which adopted a centralized approach and developed a system-wide staff development plan. Only one consortium used a formal needs assessment method to determine staff development needs, the others used informal methods such as meetings with staff or planning meetings to become cognizant of student demand and staff interests and needs. The developmental activities were, in all cases, oriented toward the consortium-wide marketing plan (or the district-specific version thereof) with the main goal of enabling staff to successfully market Tech Prep to students, parents, business and industry, and the community at large. Among the activities planned were workshops, attendance at conferences, the publication of printed materials, as well as regular updates about developments in Tech Prep at the consortium, state, and national levels.

Implementation (What was actually done?)

Describe the staff development and training activities your consortium has conducted to address the Tech Prep marketing strategies.

Staff development and training activities consisted primarily of inservice activities conducted by consortium representatives, workshops, attendance at regional, state, or national conferences, and site visits to other consortia. Information about Tech Prep was also regularly disseminated at staff meetings. A variety of printed materials supported the developmental activities. Many consortia reported that articles about the status of Tech Prep were regular features in school newsletters, and at least one consortium has designed and printed information booklet regarding Tech Prep. All but one consortium involved teachers and staff actively in marketing

Tech Prep. The exception was one consortium that had a marketing specialist on staff who conducted most of the marketing activities for that consortium.

Continuous Improvement

How were you able to determine if the staff development activities your consortium provided were successful in developing expertise needed to address your marketing needs? What data did you collect?

How are you using this information to develop new or revised staff development activities to improve the marketing of Tech Prep programs?

Most consortia reported that marketing Tech Prep was still in its initial stages, but recognized the need for continuous and ongoing efforts in promoting Tech Prep to all constituents. Only a few consortia collected data about their marketing effort. Most reported relying on informal means, such as verbal feedback or word-of-mouth. The information that was collected centered around feedback on the materials distributed and other information about future needs and areas of opportunity for Tech Prep. Such feedback included regional surveys and questionnaires regarding the level of knowledge and awareness of Tech Prep, the number of articulation agreements in place, and the types and amounts of promotional materials ordered.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Tech Prep System - **Marketing***
*System Activity - **Special Populations***

Planning

Describe the process your consortium used to develop a Tech Prep marketing plan specifically for the inclusion of students with special needs.

Describe the marketing activities your consortium planned to market Tech Prep programs to students from special populations and their parents.

Planning for marketing of Tech Prep to special populations was conducted primarily in an informal fashion. Some consortia reported that there no formal plans for marketing to special populations, others mentioned their intent to be inclusive, targeting all students. Only a few consortia had actual representation and participation of special needs staff or special population advocates during the planning phase. Most consortia left it to the individual schools to develop plans to include special populations in their marketing efforts.

Implementation (What was actually done?)

Describe the activities your consortium undertook to specifically attract students from special populations to the Tech Prep programs in your consortium's schools.

Despite the lack of systematic and inclusive planning for recruiting special populations to participate in Tech Prep, all consortia reported conducting a number of activities targeted toward encouraging members of special populations to consider enrolling in Tech Prep courses. These activities included conducting workshops and inservices for counselors, other special needs staff, and parents; developing and distributing printed materials regarding Tech Prep to members of special populations; and holding events such as career days for non-traditional students. Two consortia included activities designed to encourage female students to participate in Tech Prep and achieve gender equity. One consortium reported an effort to coordinate other special needs grants with the Tech Prep grant. The overall stated goal for most consortia was to create inclusive programs

and encourage members of special populations to enroll in Tech Prep related courses. To this end, several consortia reported an effort to develop and implement materials that addressed both mainstream and special populations.

Continuous Improvement

How were you able to determine if the marketing activities your consortium conducted actually attracted students from special populations to your Tech Prep programs? What data did you collect?

How are you using this information to develop new or revised marketing activities to attract students from special populations to your Tech Prep programs?

While several consortia reported no effort to track program participation by special populations, most consortia are keeping count of the number of members of special populations enrolled in Tech Prep programs and are finding increasing enrollments by this group of students. Several consortia stated as their goal to continue attracting special needs students to Tech Prep and to present it as a viable and valuable alternative to traditional programs. One consortium reported the need to further modify and adapt its marketing materials and activities to the need of special needs students.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Marketing***
System Activity - ***Curriculum Integration***

Planning

Describe the process your consortium used to plan the marketing of curriculum integration in the schools of your consortium.

Describe the activities your consortium planned to promote curriculum integration in the Tech Prep programs.

In most consortia the planning process for marketing curriculum integration was conducted jointly by Consortium Leadership, local districts and schools, and involvement by business and industry. The process typically involved determining the needs of schools, assessing the level of resources available, and gathering information about detail requirements of the proposed or planned integration effort. To this end, some consortia conducted visits to business and industry and consulted other consortia and districts. One consortium sponsored dinner meetings for high school and technical college staff, others organized workshops and joint planning meetings with different constituents. By and large, there was an effort to leave as much autonomy as possible to the local district while maintaining overall direction at the consortium level.

Implementation (What was actually done?)

Describe how your consortium marketed curriculum integration to all groups both in and out of the schools in your consortium.

Both the curriculum integration plan and ongoing and completed integration efforts were communicated to all parties involved through a variety of media: in presentations, workshops, conferences, inservice training, and through brochures, newsletters, and other written materials. In all cases, the intent was to educate and communicate curriculum integration to as wide an audience as possible. This included teachers, counselors, students, parents, industry and business partners, consortium leadership, and the community at large. Several schools sponsored summer writing projects, others made mini grants available to schools for the development of marketing materials that then would be shared with other schools and districts. One school identified specific individuals who were charged with promoting Tech Prep curriculum integration. A number of consortia reported that member schools sponsored events such as career nights and presentations by industry representatives to market Tech Prep. Frequently, districts developed materials available at registration to encourage students to consider integrated courses. In order to keep information current and accurate, one consortium reported that it held workshops for school staff regularly.

Continuous Improvement

How were you able to determine if the marketing activities your consortium conducted to promote curriculum integration in your Tech Prep programs were successful? What data did you collect?

How are you using this information to develop new or revised marketing activities to improve curriculum integration in your Tech Prep programs?

Most consortia assessed the effectiveness of their efforts to market curriculum integration along with other Tech Prep results indicators. They tracked the number of articulated courses and the number of students enrolling in those courses. Most consortia reported encouraging results that point to increasing enrollment and interest in articulated, applied academic courses, as well as an increased interest in advanced levels. The marketing effort has led to innovative approaches such as team teaching, and plans to integrate Tech Prep with Youth Apprenticeship or Career Academies. Other consortia cited an increase in the number of requests for information about Tech Prep from teachers and parents, and increased demand for promotional materials, as evidence of successful marketing.
This positive information is used to reaffirm the direction and effort in marketing Tech Prep. Only one consortium offered insight into areas for improvement. Their

marketing activities are seen as needing to be redefined to involve regular academic teachers to a larger degree.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Tech Prep System - **Marketing***
*System Activity - **Articulation***

Planning

Describe the process your consortium used to plan for promoting the articulation of secondary and post-secondary Tech Prep programs.

Describe the activities your consortium planned to market articulation within its Tech Prep programs.

Articulation and the promotion of articulation efforts went, in most cases, hand-in-hand, and was initiated in most cases by consortium leadership or committees appointed by consortium leadership. Through regular meetings, the appointed body developed a marketing strategy that included communication to all stakeholders involved, development of written and visual materials, and regular updates on the progress of articulation. In several instances, promotion was addressed jointly by several schools and districts. The appointed committee reported to the consortium leadership regularly. Only one consortium reported that articulation and the promotion of articulation was not one of its foremost concerns.

Implementation (What was actually done?)

Describe how your consortium marketed articulation of secondary and post-secondary Tech Prep programs to all groups both in and out of the schools in your consortium.

The promotion of articulation for Tech Prep progressed along with the articulation efforts and typically included orientation sessions for faculty, counselors, students, parents, and the community at large; written materials, such as brochures, flyers, newsletters, and booklets; and, in many cases, videos produced by the consortium. Many consortia mentioned that information about articulated courses was regularly included in registration booklets. Many consortia also displayed the progress of articulation efforts visually in the form of flowcharts or graphs that explained the available articulated programs and courses. Several consortia publicized articulation during career days or similar public events, and some held joint events with the

respective technical college. Graduation ceremonies and formal certificate award festivities were also often used to publicly recognize and promote Tech Prep. Many consortia mentioned that they kept teachers and counselors regularly informed of new articulation agreements, so that they, in turn, could pass along the message and promote Tech Prep through word-of-mouth. Lastly, a number of consortia involved the public media to celebrate and promote the completion of articulated courses or programs.

Continuous Improvement

> How were you able to determine if the marketing activities your consortium conducted to improve the articulation of your Tech Prep programs were successful? What data did you collect?
>
> How are you using this information to develop new or revised marketing activities to improve articulation within your Tech Prep programs?

The most frequently mentioned method to assess the success of articulation was to track the number of articulation agreements and the numbers of students enrolled in or successfully completing articulated courses. This information is being recorded at the district and at the consortium level. Other consortia record the number of certificates issues upon successful completion of an articulated course or series of courses. This information, along with informal feedback from teachers, counselors, students, parents, and the community, is used to gauge the effectiveness of the marketing effort and to fine-tune or adjust the marketing strategy for Tech Prep.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Tech Prep System - **Marketing***
*System Activity - **Partnerships***

Planning

Describe the process your consortium developed to ensure that all stakeholders were included in the decision-making process for the Tech Prep marketing plan.

Describe the activities your consortium planned to use to assure the participation of stakeholder groups in the planning and implementation of the marketing of Tech Prep programs.

The need for including a wide variety of stakeholders in the planning and implementation phase of marketing Tech Prep courses and programs was recognized by all consortia. Consequently, all consortia reported the participation of a broad group of constituents Through joint conferences, workshops, planning meetings, focus groups, or committee memberships, consortia leadership and steering committees ensured that district and school-level staff, instructors, technical college partners, parents and community groups, and, perhaps most importantly, business and industry, were represented and participated in marketing. One consortium reported that it ensured that all consortium activities addressed the needs of special populations.

Implementation (What was actually done?)

Describe the involvement that stakeholder groups had in the marketing of Tech Prep programs in your area.

Consortia attempted to market Tech Prep through active involvement of all stakeholder groups that had participated in the planning phase: they developed and distributed promotional materials, such as flyers and brochures that had been endorsed by business and industry and other stakeholder groups; they broadcast radio ads and ran newspaper ads that spoke to the broad involvement by all stakeholders; and they made joint presentations to parents, students, and the community at large. Several consortia reported that the broad involvement in Tech Prep resulted in site visits by business and industry leaders to the schools,

or, conversely, in 'externships' and visits by students and instructors to local business and industry sites. One consortium remarked on successfully involving the local Chamber of Commerce. Another pointed to the promotion of SCANS information by a Private Industry Council.

Continuous Improvement

How were you able to determine if the participation of stakeholder groups in the marketing of Tech Prep programs was successful? What data did you collect?

How are you using this information to improve the future participation of stakeholders in marketing Tech Prep programs in your consortium?

Feedback regarding the effectiveness of these efforts was sought mostly in the number of students participating in Tech Prep and the number of Tech Prep graduates. In some instances, consortia tracked the number of joint meetings. All consortia used informal or semi-formal feedback, such as participant assessments collected at the end of meetings, workshops, or seminars. This information was used to assess and improve the quality of ongoing marketing activities, and to improve the process of collaboration among different stakeholder groups.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Tech Prep System - **Marketing***
*System Activity - **Evaluation***

Planning

Describe how the strategies to evaluate the success of your consortium's marketing plans for Tech Prep were developed.

Describe the assessment strategies your consortium planned to use to determine the success of its Tech Prep marketing activities.

Planning for the assessment of a consortium's marketing effort was an area that, in general, had not received much attention. Several consortia reported that no assessment strategy had been included during the planning phase, others said that they relied on informal ways of verifying whether marketing was successful. Where it had been addressed, numeric outcome measures were cited: the goal to have each school in the consortium sign at least one articulation agreement, an increase in the level of interest in Tech Prep, increased enrollments, Tech Prep certificates awarded, or enrollment in post-secondary with advanced standing. Two consortia had defined a positive change in students' and parents' attitudes toward Tech Prep as indicators of successful marketing. Another consortium was concerned with a growth in stakeholder satisfaction with all program components as measured by feedback from steering committee members.

Implementation (What was actually done?)

Describe the assessment activities that were conducted by the consortium to determine the success of your Tech Prep marketing program.

No consortium evaluated the success of its marketing effort in isolation from other measurements. Most consortia cited the use of enrollment data tracking as an indicator for successful marketing. Others tracked the volume and kind of promotional materials that schools and districts requested. There was also widespread use of the number of articulation agreements as indicators of success in marketing Tech Prep. One consortium had used a broad assessment strategy consisting of surveys, questionnaires, focus groups, enrollment data, and feedback from students, parents, and the business community. For several consortia, the self-assessment process served as focal point to reflect on their marketing efforts and assess the effectiveness of measures taken.

Continuous Improvement

How were you able to determine if the assessment activities used to evaluate your marketing of Tech Prep programs were successful? What data did you collect?

How are you using this information to improve the future assessment of your marketing program for your consortium?

Many consortia reported that their assessment process for marketing was still in a developmental stage, since the program and associated marketing efforts were relatively new. Several cited looking for guidance from the state for the development of a process and instrument. There was widespread agreement that marketing was an essential component of Tech Prep, and that the goal was to increase awareness and commitment to Tech Prep, and to increase enrollments and certificates awarded.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Retrospective - **Marketing***

Planning

What planning processes worked best for your consortium while it was designing the marketing plan for Tech Prep programs?

By far the most frequently mentioned factor in successful planning for marketing Tech Prep was the active involvement and committed work of a broad-based steering committee of representatives from the districts, technical colleges, the community, and business and industry. This involvement allowed for networking opportunities across boundaries, facilitated the exchange of information, and ensured that problems could be addressed in a timely and effective manner. Broad-based participation also facilitated and strengthened the drafting of articulation agreements. Further emphasis was placed on ongoing communication and comprehensive inservices for all staff involved in Tech Prep.

Based on your experience, what pitfalls would you caution a new consortium about when planning to market Tech Prep programs?

Constraints in terms of funds, time, and resources plagued most all consortia. Many, therefore, cautioned against taking on too many initiatives at once, overtaxing the system, or focusing too many resources on big promotional efforts, such as video or radio/TV ads. Consortia also advised developing a strategic plan and adhering to it, in order to promote a common vision of Tech Prep, to involve key individual from different levels, and to consider the involvement of all stakeholders from the very beginning. Several consortia cautioned against implementing a marketing strategy before both programs and processes are in place.

Implementation

When implementing your Tech Prep marketing plan, in which areas of activity did you experience the greatest successes? Explain why you think these occurred.

Among the successful activities surrounding the marketing of Tech Prep was the involvement of teachers, counselors, and other site-based staff. Several consortia identified word-of-mouth promotion of Tech Prep as by far the most effective form of marketing. To this extent, it was necessary to provide instructors and counselors with accurate and timely information. This aspect, too, was successful. Promotional printed materials, such as brochures, booklets, and flyers, also helped to promote Tech Prep. Another successful aspect was the quality of the program. Tech Prep courses that are seen as being on the cutting edge of technology, as one consortium put it, will sell themselves, and students will be anxious to enroll. A different aspect that was seen as a success was the networking opportunities provided by getting several stakeholders involved. This led to events such as teachers' tours of local businesses and industry representatives speaking before students, providing realistic and accurate information and helping students select Tech Prep programs.

Please describe the three of four greatest difficulties you have encountered in marketing your Tech Prep programs? Please explain why you think these occurred.

Among the biggest barriers to successful marketing was the negative attitude toward Tech Prep and Vocational Education, and, conversely, the perceived superiority of an academic curriculum and a four-year college degree. Students and parents alike still lack adequate information about the value of Tech Prep. Another barrier that was addressed frequently was the lack of adequate funding, resources, and time, and the difficulty in coordinating the activities of several school districts, especially in large consortia. Other difficulties were a competition of Tech Prep with private business schools that are experienced in marketing to a broad audience, and the lack of involvement by middle schools in Tech Prep.

Continuous Improvement

Which areas of activity during the implementation of your Tech Prep marketing program were most easily improved? Why?

Many consortia found the addition of courses, the drafting of articulation agreements, and the expansion of the curriculum to include applied academics easy to accomplish. The improvement of the level of communication between secondary and post-secondary schools was also mentioned several times. Another aspect that consortia addressed as positive was that slowly the public perception of the value of Tech Prep was beginning to change. Tech Prep is gaining in popularity in many schools. The concept is beginning to take hold, leading to improved recognition of its value. This is due, in part, to staff inservices, frequent communications with parents and students, and a large number of public presentations.

Please describe the areas you found most difficult to improve in the marketing of Tech Prep in your consortium and explain why you think this was so?

Among the biggest challenges continues to be the misperception of the value of Tech Prep as an inferior alternative to an academic education. This change in attitude needs to take place in teachers and counselors as well as in students, parents, and the community.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Student Assessment & Evaluation***
System Activity - ***Overall Planning***

Planning

Describe the mechanisms you planned for implementing Tech Prep student assessment and assessment goals from your consortium's original strategic plan (e.g., committees, planning groups)?

Describe the overall goals, activity plans, and timelines with which you charged personnel assigned to develop Tech Prep student assessment and assessment during the project.

Student assessment and program assessment is at the core of a Tech Prep program and thus is a key component of every consortium's strategic plan. The planning of assessment and assessment strategies was typically conducted by a central sub-committee or team reporting to the consortium steering committee. The assessment committee's tasks included the development of an assessment design, data collection instruments, and processes for data collection, analysis, and reporting. Evaluation typically included both outcome (summative) and process (formative) indicators. In several cases, assessment criteria were developed with the help of external criteria, such as the Minnesota Graduation Rule, SCANS competencies, CORD materials, and defined district learner outcomes. Evaluation criteria were coordinated with post-secondary partners, and included course-by-course performance-based authentic assessments, entrance or placement tests of partnering technical colleges that helped to guide curriculum content at the secondary level, and follow-up studies of high school graduates.

Implementation

Describe how the goals, activity plans, and timelines for student assessment and assessment Tech Prep were coordinated among the institutions within your consortium?

While many consortia had extensive plans for assessment and assessment, the implementation of these plans is, in many cases, still unfolding. In all consortia, the assessment teams or committees have initiated meetings and discussions around assessment tools and approaches with various stakeholders. To that end, information has been disseminated, workshops and other events have been held, and site visits by consortium leadership have been conducted. One consortium is in the process of piloting an assessment plan with a number of pilot schools, another reported that all member schools have initial assessment plans for students and courses in place. In one instance, the district school collaborated with the technical college on the testing and reporting of student competencies in Tech Prep related courses. Another reported the use of the MRDC process as the primary tool for assessment and assessment. A number of quantitative measures are also in place in some consortia. These include the tracking of certificates awarded to Tech Prep students, the number of articulated courses, enrollment data, and tracking of transferring high school graduates. Informal information are also collected in many consortia, including feedback from teachers, students, counselors, and parents.

Continuous Improvement

How were you able to determine if the mechanisms, goals, activity plans and timelines set for Tech Prep student assessment and assessment were reasonable; what data did you collect?

How are you using this information to develop new or revised overall goals and strategies for implementing the consortium's Tech Prep student assessment and assessment?

The overarching goal of assessment and assessment is the improvement of Tech Prep programs and services. To this end, some consortia conduct annual reviews of articulated course assessments, and provide summary information to consortium leadership regularly. The importance of assessment and assessment appears to be well understood, but there is a lack of time and resources for comprehensive assessment in many consortia.

Minnesota Tech Prep Consortia Evaluation System
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Tech Prep System - ***Student Assessment & Evaluation***
System Activity - ***Staff Development***

Planning

Describe the process your consortium used to plan for the staff development required to conduct Tech Prep student assessment and program assessment.

Describe the staff development activities your consortium selected to prepare staff to conduct Tech Prep student assessment and program assessment.

Planning for staff development around Tech Prep student assessment was either centralized by consortium leadership or conducted locally by individual districts. When done locally, close collaboration between the district and the consortium ensured some degree of oversight. The planning typically addressed two aspects: selection of student assessment instruments and program assessment methods, and staff training in those tools and methods. Virtually all consortia involved a range of stakeholders in the planning process, including counselors, technical college staff, students, and parents. Participation of diverse groups took the form of workshops, site visits by coordinators, and meetings. The student assessment tools selected included authentic assessment, the Minnesota Graduation Rule, Guidance Counseling, learning style inventories, and standard assessments in math, science, and communication. Once these methods and tools had been decided upon, consortia conducted needs assessments and gap analyses to determine the development and training needs of staff and counselors. One consortium had a specialized assessment available for this task, another conducted a random sample survey to assess the extant skill level of its staff.

Implementation (What was actually done?)

Describe the activities your consortium conducted to train staff in Tech Prep student assessment and program assessment.

While two consortia reported that no formal training in Tech Prep student assessment and program assessment had been conducted, the other eight consortia cited a variety of staff development activities, ranging from in-service training to workshops, teleconferences, and sponsorship of participation in state and national

events, such as the National Tech Prep Conference, the AVA Annual Conference, The National Counselors' Teleconference, or events organized by the Portland Area Vocational Education Consortium (PAVTEC). Several consortia held cross-training events with technical college and state university instructors, or used joint development ("Train by Sharing") methods. Staff training focused on the use of assessment tools and methods, and included the use of the Tech Prep Identifier Form, the Minnesota High School Follow-up System, authentic assessment, articulation, the Minnesota Graduation Rule, and career planning.

Continuous Improvement

How were you able to determine if the staff development activities you conducted were appropriate to Tech Prep student assessment and program assessment needs? What data did you collect?

How are you using this information to improve future staff development activities for student assessment and program assessment in your Tech Prep consortium?

Virtually all consortia reported the use of informal feedback as the primary tool to determine the success of staff development activities. This included assessments of training events by participants, but also perceived changes in the level of interest by students and parents in Tech Prep. Typically, this information was shared with consortium leadership. Several consortia tracked the number of Tech Prep students and viewed an increase in Tech Prep enrollment as evidence of successful staff development. Most consortia expressed the need for a more comprehensive and valid assessment and program assessment. While several consortia look to the state for such a system, others reported the use of existing data collection activities, such as the Minnesota High School Follow-up system, the High School Senior Survey, and the Tech Prep Consortia Evaluation System. There is an interest in the development and use of career portfolios, and a need for the creation of increased career awareness by students beginning as early as elementary school.

Minnesota Tech Prep Consortia Evaluation System
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Tech Prep System - ***Student Assessment & Evaluation***
System Activity - ***Special Populations***

Planning

Describe the process your consortium used to plan Tech Prep student assessment and program assessment strategies for students from special populations.

Describe the strategies your consortium selected for Tech Prep student assessment and program assessment for special populations.

The planning for Tech Prep assessment of students from special populations involved, in almost all cases, professional staff familiar with this population, namely transition coordinators, LD, EBD, and ESL departments, and special needs students counselors and case workers. The purpose of their involvement was to ascertain that the assessment and program assessment tools and processes accommodated the needs of special populations. The outcome of this deliberation was in all cases the decision to use either processes and tools already in existence for special populations, or to use the same methods for all Tech Prep students, irrespective of status. In either case, consortia made an effort to accommodate the needs of special populations by making special arrangements in terms of scheduling of and access to assessment activities.

Implementation (What was actually done?)

Describe how the performance of Tech Prep students from special populations was assessed in your consortium.

Describe how the success of Tech Prep programs in serving students from special populations was evaluated.

Consortia described the process and methods used to assess the performance of Tech Prep students from special populations. In one case individual schools contracted with outside agencies for aptitude testing and involvement of special education staff and programs. In another instance, the consortium reported a team approach involving special education staff. Many consortia used PER and IEP processes to set goals and track performance of special populations. This involved, in several

consortia, special population counselors or case workers. One consortium reported work with incarcerated students that had been funded through a Tech Prep grant. Overall, many consortia reported the use of informal methods, such as verbal feedback and testimonials, to gain insight into the success of special populations in Tech Prep programs.

Continuous Improvement

How were you able to determine if the Tech Prep student assessment and program assessment strategies were successful? What data did you collect?

How are you using the information you collected to develop new or revised student assessment and program assessment strategies?

The type of data collected mirrors those collected for regular students. Consortia tracked the number of enrollments in Tech Prep, the number of certificates awarded, the number of transfers to technical colleges, and satisfaction ratings of students, parents, and teachers. This information was collected, in many cases, through special populations staff, such as case managers or counselors. The information was used to track performance and detect early indicators of possible failure in the program, to decide upon the need of supplemental materials, and to provide career assessment and counseling services. Overall, there was consensus that the assessment of special populations was in its initial stage. Early results, however, pointed to a decrease in the trend of disruptive student behavior, but also pointed to a need to create more awareness of Tech Prep among special education teachers, to develop an awareness among minority students of work place requirements, and to encourage enrollment in non-traditional areas.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Student Assessment & Evaluation***
System Activity - ***Curriculum Integration***

Planning

Describe how your consortium developed a plan to conduct student assessment and program assessment within an integrated curriculum.

Describe the unique characteristics of your student assessment and program assessment plans that resulted from the consideration of curriculum integration in Tech Prep programs.

In virtually all consortia, planning for student assessment and program assessment within integrated curricula was conducted centrally by consortium leadership or a committee appointed by the consortium. In most cases, however, a variety of stakeholders, such as business, industry, labor, member districts, and post-secondary institutions, were consulted or played key roles on the committee. Only one consortium left the planning entirely to the individual member districts. The planning committee's tasks were to develop assessment strategies and decide upon assessment methods, tools, and instruments. In one instance, the consortium reported that the committee's initial activity consisted of developing a global definition of integration for its member districts and schools. Many consortia used outside resources, such as CORD materials, or the ASSET entrance/placement test as models to guide their work, others sought information from out-of-state Tech Prep consortia or the National Center for Research in Vocational Education (NCRVE). There was wide-scale agreement over the goals of integration assessment and assessment, namely to provide the consortium and districts continuous information about the status of curriculum integration and to be able to modify and adjust the programs in a timely fashion.

Implementation (What was actually done?)

What unique student assessment and program assessment techniques were adopted to accommodate an integrated curriculum in your consortium?

The consortia varied in the level of actual implementation of student assessment and program assessment techniques. Some had in fact developed and implemented

specific instruments and techniques (for example tests, students projects, demonstration of skills, pre/post designs in applied academic areas). Others relied primarily on standardized tests, such as the ASSET entrance/placement test. A few were only now beginning to implement their plans. Related outcomes of those who had implemented instruments and techniques were a variety of materials and information provided to students, parents, and the community. One consortium, for instance, had developed and distributed a brochure about Tech Prep classes and careers. Others had begun to regularly advise students about the progress of articulation agreements. Yet others had school counselors heavily involved in identifying students for Tech Prep and promoting the program.

Continuous Improvement

How were you able to determine if the student assessment and program assessment activities you developed in light of curriculum integration were appropriate? What data did you collect?

How are you using this information to improve your student assessment and program assessment systems in relation to curriculum integration?

The type of data collected for determining the success of student assessment and program assessment activities in light of curriculum integration consisted primarily of enrollment and persistence data. Consortia tracked the number of students in Tech Prep courses, used existing instruments like the Minnesota High School Follow-up system, the Tech Prep Identifier Form, and locally used standardized tests. A number of consortia also collected informal feedback from students and instructors—both at the secondary and post-secondary levels, and measured the level of interest in applied and integrated courses. The information was regulatory fed back to the consortium level where executive committees used the information to decide over curriculum acquisition matters.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Student Assessment & Evaluation***
System Activity - ***Articulation***

Planning

Describe how your consortium developed a plan to conduct student assessment and program assessment within an articulated curriculum between secondary and post-secondary education.

Describe the unique characteristics of your student assessment and program assessment plans that resulted from the consideration of articulated programs.

The mandate to conduct students assessment and program assessment within the articulated curriculum between secondary and post-secondary levels was clearly understood by all consortia, and planning efforts were in process in most. Many consortia had established subcommittees consisting of members of the secondary and post-secondary communities whose task was to decide upon criteria for successful articulation of programs and courses, and to develop a process for collecting and analyzing assessment and assessment data. Some consortia used benchmarking as a way of learning about successful assessment procedures in other consortia. There appeared to be consensus among the cohort that the assessment should span the entire four year course of study. Actual planning, however, differed from consortium to consortium. Some had not progressed much beyond initial meetings and discussion, while others had succeeded in defining and implementing specific course-by-course performance-based authentic assessments for most of the articulated courses. Many plan to review their assessment and assessment approaches annually, again involving members of secondary and post-secondary levels. Consortia also recognized that any assessment strategy should be communicated to counselors, teachers, and students, and several had plans to disseminate such information.

Implementation (What was actually done?)

What unique student assessment and program assessment techniques were adopted to accommodate an articulated curriculum in your consortium?

Implementation of assessment and assessment was, in most cases, still in its initial stage due to the fact that only a few Tech Prep students have graduated from high school and had the opportunity to enroll at the post-secondary level. For many consortia, then, it was too early to have implemented student assessment and program assessment to any large extent. Progress, however, had been made in meeting with representatives of both levels to determine which courses and programs were to be articulated, what objectives and requirements those courses had, and how those courses could best be streamlined. In several instances, this effort led to the development of written guidelines that specifically recommended sequences of courses and provided detailed entrance requirements for programs/courses at the post-secondary level to secondary students, teachers, counselors, and parents. Similarly, inservices and staff development activities had been carried out to provide current and detailed information to staff about the progress and implementation of articulation efforts. One consortium was working on a process to allow students entering from other consortia's secondary systems into its own post-secondary system.

Continuous Improvement

How were you able to determine if the student assessment and program assessment activities you implemented in light of an articulated curriculum were appropriate? What data did you collect?

How are you using this information to improve your student assessment and program assessment systems in relation to curriculum articulation?

Due to the recent implementation of Tech Prep, none of the consortia had a solid process for evaluating the effectiveness of its in place assessment system. Most reported tracking the number of articulated courses and programs, the number of enrollments, the number of Tech Prep secondary certificates awarded, and the number of students who continue on at the technical college or community college level. Many consortia had decided to review their articulation agreements annually, to review the approval of articulated courses annually, and to decide upon revisions or changes jointly with secondary and post-secondary members. Several consortia mentioned the plan to incorporate the requirements of the Minnesota Graduation Rule standards into the articulation assessments. Most consortia collect informal feedback and report this information back to the steering committee. One consortium observed the need to move away from a view of articulation as a time-shortened approach to articulation as a higher skills concept.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Student Assessment & Evaluation***
System Activity - ***Partnerships***

Planning

Describe the process your consortium planned to ensure that all stakeholders were included in the design of Tech Prep student assessment and program assessment.

Describe the activities your consortium planned to use to ensure the participation of stakeholder groups in the planning and implementation of the student assessment and program assessment systems in your Tech Prep programs.

Forming partnerships and collaboration among and between levels and sectors is a key aspect of Tech Prep. All consortia reported, consequently, the involvement of a broad spectrum of constituents in the planning of Tech Prep overall, and in student assessment and program assessment in particular. Through the involvement of students, staff, schools, the community, business and industry, and outside agencies, consortia developed plans to conduct assessment and assessment. In one case, a grant made the involvement of instructional staff of a correctional facility possible. Involvement of constituents also mandated communication strategies that kept everybody informed regularly and provided a means for input and involvement. In one consortium this was part of the responsibilities of newly appointed high school site coordinators. Another consortium reported the plan to review all articulated curricula course-by-course at technical college advisory committee meetings.

Implementation (What was actually done?)

Describe how members of stakeholder groups were actually included in the design and implementation of the assessment of Tech Prep students and Tech Prep program assessment.

Consortia solicited involvement of a wide variety of stakeholders primarily through public events, such as dinners, 'Tech Prep Suppers', workshops, seminars, and regular meetings. One consortium attempted to recruit members for focus groups

via newspaper ads. Other ways of ensuring the involvement of stakeholders were staff development events with participants from a variety of organizations and institutions, invitations to workshops on assessment and assessment held by a nationally known Tech Prep expert, and wide membership in steering committees, articulation groups, and advisory committees. These activities have resulted in the formation of long-lasting partnerships among members who regularly address assessment and assessment issues. The most clearly articulated result came from one consortium that had established guidelines and standards for assessment and assessment, had validated these guidelines through members from business and industry, and had technical college advisory committees review and approve the assessments. As in the planning stage, continuous and timely communication to all stakeholders was seen as critical for effective partnering.

Continuous Improvement

How did you determine if the inclusion of stakeholders in the design and implementation of student assessment and program assessment was appropriate and successful? What data did you collect?

How are you using this information to improve the contribution of members of stakeholder groups in the assessment of Tech Prep students and the assessment of Tech Prep programs?

All consortia reported collecting informal feedback about the various activities regularly and modifying processes and techniques accordingly. In addition, several consortia collect feedback from those affected by Tech Prep: students, parents, business and industry, and the community at large. Business involvement in the assessment process is seen as critical, as is the need to capture the voice of students currently enrolled in Tech Prep. One consortium relied heavily on the self-assessment process and the information collected through it. Another consortium reported that the articulation process and partnering with post-secondary was seen as successful, and that it supported the use of authentic assessment as a measurement tool. Several consortia stressed the importance of continued business involvement in assessing the relevance of the Tech Prep curriculum and the skills exhibited by Tech Prep graduates once they are employed. Other suggestions were the establishment of parent and business advisory boards, and the capturing of student opinions.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Student Assessment & Evaluation***
System Activity - ***Evaluation***

Planning

Describe the process your consortium used to plan for the assessment of the Tech Prep student assessment and program assessment strategies.

Describe the assessment strategies your consortium selected to appraise its Tech Prep student assessment and program assessment systems.

The planning for an 'assessment of the assessment process' was conducted, in most cases, by consortium leadership, although one consortium reported leaving it up to the individual districts, and several others indicating that they are looking to the state for guidance. The development of criteria for this purpose was typically the task of articulation committees or other central committees or groups. In most cases, the development of specific assessment strategies was still in its formative stages.

Implementation (What was actually done?)

Describe the activities your consortium actually conducted to appraise its Tech Prep student assessment and program assessment activities.

Most consortia relied on informal information, such as feedback from instructors, counselors, and students, to appraise the assessment and program assessment activities.

Continuous Improvement

How were you able to determine if the procedures used to evaluate your Tech Prep student assessment and program assessment activities were successful? What data did you collect?

How are you using this information to improve the future assessment of the student assessment and program assessment activities for your consortium?

Informal information is used at annual review meetings of articulation agreements and for other planning purposes. In one instance, a consortium reported that a new assessment process was under development because feedback from a variety of stakeholders indicated that the current practice of collecting outcome-based data was not supported by the member schools and districts. Another consortium indicated the need for consortium leadership to standardize the student assessment and program assessment process.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Retrospective - ***Student Assessment & Evaluation***

Planning

What planning processes worked best for your consortium in designing Tech Prep student assessment and program assessment systems?

The consortia stressed two main areas that had proven to be successful in planning for student assessment and program assessment. Most reported that a team approach with involvement of many different stakeholders created a level of synergy and commitment that helped the process along. A related comment was the creating of good rapport, trust, and direct and open communication among all parties involved in the planning process. Only one consortium reported that, due to its large size, a decentralized approach, letting local districts decide upon their own process and tools, worked best. The second factor that was frequently addressed was the importance of having a leadership team that was experienced or had access to expert resources in the area of assessment and assessment. One consortium reported that it had successfully involved high school coordinators who had expertise and knowledge of local circumstances in the planning process.

Based on your experience, what pitfalls would you caution a new consortium about when planning Tech Prep student assessment and program assessment?

In addressing potential pitfalls to avoid in planning for assessment and program assessment, several consortia strongly advised to involve from the very beginning 'front-line' staff, i.e. teachers, counselors, and other who have detailed knowledge of the specific district and school. To this end, the mandate to assess students and program must be communicated early in the planning process. A second concern was related to the integration of concurrent policy changes, rules and movements other the Tech Prep, such as the high school graduation rule, into the Tech Prep assessment process Thirdly, several consortia warned not to underestimate the amount of time and resources required for successful planning and implementation of Tech Prep assessment. The merger of the technical college system with higher education was reported to create additional problems for Tech Prep. These resource-related problems were acutely felt by large consortia that incorporate a large number of diverse and geographically distant districts. A last point of warning was related to the difficulty finding or developing valid instruments and methods of assessment and

assessment, especially when a triangulated approach, using several different methods of assessment and assessment, is desired.

Implementation

When implementing Tech Prep student assessment and assessment, in what areas of activity did you experience the greatest success? Why?

The most frequently cited success in implementing student assessment and program assessment for Tech Prep was that the process of involving a variety of stakeholders led to good working relationships among the different groups and stakeholders. This resulted in improved communication, effective decision making processes, a general atmosphere of trust, and, ultimately, solid assessment and assessment procedures that were supported by all. Another benefit was the number and quality of articulation agreements which attracted a lot of attention from students, parents, and the community at large. The process resulted in a shift in thinking about instructional practice not only among teachers, but also students, parents, counselors, and career center staff who all acted in support of Tech Prep.

What Tech Prep student assessment and program assessment activities would revise if you had it to do over again?

Among the activities that consortia would revise were the active involvement of business and industry early in the assessment planning process, and the greater education of parents and students about changes in the economy, the work force, the labor market, and the educational requirements for success in today's world. Consortia also addressed the need to create assessment and assessment tools and processes early in the program and apply it uniformly in all districts; or, at least, to standardize existing assessment procedures within the consortium. A final point of suggestion was to provide training that would help teachers tie performance based assessment to graduation rule standards.

Continuous Improvement

Which areas of activity during the design and implementation of Tech Prep student assessment and program assessment systems were the easiest to improve? Please explain why you think they were?

The areas that were easiest to improve were the cooperation between institutions because secondary and post-secondary schools share the common vision of providing a quality education. Articulation agreements, in particular, were easy to improve with the support of the technical college. Areas were easy to improve to the extent that little or no financial investment was required and when staff had a large degree

of control over that particular area. The formation of smooth and rewarding working relationships between different levels of institutions was further cited as contributing to the review process for articulated assessments. Lastly, several key measures, such as the number of completed articulation agreements and the Tech Prep Course Survey instrument used by one consortium, were easy to obtain and useful for program assessment and assessment purposes.

Describe the areas you found most difficult to improve in Tech Prep student assessment and program assessment. Please explain why you think they were.

A major area of difficulty for consortia was to overcome the stereotypical judgment of Tech Prep as inferior to an academic education. Even internally, support for Tech Prep was oftentimes difficult to obtain, either because information had not been shared from the start, or because stakeholders are involved in a myriad of other activities and simply have little time for Tech Prep. Many consortia also reported difficulties with gathering and interpreting assessment information. Evaluation data were seen as difficult to gather early on in the implementation of the program, or they were hard to gather in a comprehensive fashion as baseline data against which to compare later achievement. In many cases, consortia lacked the resources or expertise for developing valid and comprehensive assessment tools. One consortium also reported that assessment data were oftentimes seen as too removed from more pressing activities on hand.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Support Services & Counseling***
System Activity - ***Overall Planning***

Planning

Describe the mechanisms you planned for implementing Tech Prep support services and counseling service goals from your consortium's original strategic plan (e.g., committees, planning groups)?

Describe the overall goals, activity plans, and timelines with which you charged personnel assigned to develop Tech Prep support services and counseling services during the project.

Support services and student counseling were activities that were included in most consortia's strategic plans. Planning for those activities, therefore, received priority in many cases. The overall goals for this area included the provision of support and services that enable students to make informed decisions about career choices, to provide for career awareness and exploration, and to put processes in place that would lead to systematic planning and monitoring of students' educational activities. To this end, many consortia had planned the development and dissemination of information materials, such as brochures, flyers, or career option information. Planning for the development of these materials and activities was done jointly between secondary and post-secondary in many cases. Most consortia also stressed the importance of involving school and college counseling staff in the planning activities. Staff development played a big role in this area, as teachers, counselors, administrators, and other staff needed to be well informed of Tech Prep options and activities. Several consortia expanded their planning horizon to include career development activities in junior high school. Many emphasized the need for inclusion and accommodation of special needs students. Another key point with several consortia was the linkage between counseling and industry and business needs.

Implementation

Describe how the goals, activity plans, and timelines for the Tech Prep support services and counseling services were coordinated among the institutions within your consortium?

Most consortia emphasized that support services and student counseling were ongoing activities that required continuous or regularly scheduled inservices and updating so that staff and personnel could stay current as Tech Prep implementation progressed. Initial preparation for staff and personnel included in-depth workshops and inservices, participation in seminars and conferences, and one-on-one coaching. In many cases, there was a consortium-wide implementation team with participation of counselors from member districts and schools. This team set guidelines and parameters, but typically left the implementation and modification of generic models to the individual districts and sites. In most cases printed materials, such as brochures or career portfolios, had been developed, distributed, and were in use. Several consortia had produced or purchased non-print materials, such as a video series on career exploration or the hosting of a teleconference on career counseling. By and large, the primary emphasis in most consortia was to adequately prepare counselors and staff to carry out their roles within a Tech Prep program.

Continuous Improvement

How were you able to determine if the mechanisms, goals, activity plans and timelines set for Tech Prep support services and counseling services were reasonable; what data did you collect?

How are you using this information to develop new or revised overall goals and strategies for implementing the consortium's Tech Prep support services and counseling services?

Many consortia used enrollment information as primary evidence of the effectiveness of student support and counseling. Consortia, therefore, tracked student enrollment, the number of Tech Prep diplomas awarded, and student performance in Tech Prep courses. Other measures included the level of interest and the number of requests for information materials. Much emphasis was also placed on collecting and analyzing informal information and feedback from counselors at seminars, workshops, or other inservice activities. Several themes emerged from this informal feedback: greater emphasis needs to be placed on including counselors in planning for support and counseling; counseling and awareness building needs to begin as early as junior high school; and there is a need to include the business community in order to stay current on business and industry demands and conditions.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Support Services & Counseling***
System Activity - ***Staff Development***

Planning

Describe the process your consortium used to plan staff development activities in the area of support services and counseling for Tech Prep students.

Describe what activities were selected to prepare staff to conduct Tech Prep-related support services and counseling.

The planning activities for staff development activities in the area of student support and counseling were conducted at the consortium level with regular participation of counselors and other staff. In several instances, the team conducted a needs analysis to determine development needs of staff at the local level. In other consortia, the team sought information about counseling methods and Tech Prep from workshops on career counseling and job trends of the future. Some teams visited local businesses in order to gain an accurate assessment of employer needs and to be able to modify existing counseling and support activities. Participation in the planning phase was ensured through counselor representation on teams and, in one case, through the consortium coordinator's visits to counselors at local high schools.

Implementation (What was actually done?)

Please describe the staff development activities your consortium actually conducted to insure appropriate Tech Prep support services and counseling.

Staff development was conducted primarily through workshops, seminars, participation (in person or televised) at local, state, and national conferences, and other inservice events. Several consortia had invited nationally known experts on career counseling. Typically, a cross section of Tech Prep stakeholders, including teachers, community members, and business and industry representatives were invited to these events. Other activities included the distribution of regular newsletters and other informational materials that would allow counselors to self-study and keep up with the implementation of Tech Prep in their districts. Yet another way of educating staff and counselors on Tech Prep was to participate in

planning meetings and to visit other districts and consortia in order to glean best practices and exchange information.

Continuous Improvement

How were you able to determine if the Tech Prep support services and counseling staff development activities were successful? What data did you collect?

How are you using this information to develop or revise staff development activities for implementing Tech Prep support services and counseling?

The data collected to assess the results of staff development efforts were primarily informal. Evaluations following inservice events and feedback from counselors and staff were used to modify the programs. Frequently, consortia reported on an increased level of interest by counselors and instructors, who, due to the high counselor/student ratio, oftentimes take on the roles of counselors. In addition, student enrollment data and the amount of informational and promotional materials requested were cited most often as evidence of successful staff development. A number of themes emerged from the information: career development and planning should start as early as possible, there is a need for better communication between counselors and administrators, several consortia expressed an interest in career portfolios, and many saw a need for increased flow and improved quality of job forecasting information.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Support Services & Counseling***
System Activity - ***Special Populations***

Planning

Describe the process which your consortium used to plan for support and counseling services specifically for special populations in Tech Prep.

Describe the strategies your consortium selected to address the support services and counseling needs of Tech Prep students from special populations.

There was unanimous agreement among the consortia that Tech Prep was a program for all students. Special populations should not be singled out in any way, but rather integrated with regular students. To this end, most consortia mentioned that the support and counseling services available to special populations for non-Tech Prep classes automatically carried over into Tech Prep. By and large, there was no mention of any special accommodation or activities designed for Tech Prep special needs students. Several consortia had special needs staff or advocates involved in overall planning. About one half of the ten consortia, however, addressed issues of gender equity in this context and reported attempts to attract more women into non-traditional careers.

Implementation (What was actually done?)

Describe the activities you conducted to ensure that the support and counseling services addressed the needs of special populations in your Tech Prep programs?

As with non-Tech Prep courses, the primary vehicle for providing support and counseling to special populations was the IEP process. This included the recording of Tech Prep classes taken, regular meetings to monitor progress and assist when needed, and the possibility to assess successful completion of Tech Prep courses by members of special populations. Beyond this, one consortium reported holding a workshop for school district counselors to discuss the needs of special populations, and another consortium organized a variety of activities designed to attract more women to technical Tech Prep careers. These activities included workshops, special

emphasis during campus tours for prospective students, a summer camp, and a student fair introducing non-traditional career opportunities.

Continuous Improvement

How were you able to determine if the selected strategies successfully addressed the support service and counseling needs o Tech Prep students from special populations? What data did you collect?

How are you using this information to improve the delivery of support services and counseling to Tech Prep students from special populations?

Because of the limited scope of activities designed especially for special populations, very little assessment or data collection was reported. One consortium reported keeping track of the number of special needs students who successfully complete Tech Prep classes, another mentioned the IEP process as a convenient method of assessing the success of special needs students in Tech Prep classes. Many consortia, however, raised the issue of becoming more proactive in regards to including special populations in Tech Prep, while several others reported a concern with gender equity issues around Tech Prep.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Support Services & Counseling***
System Activity - ***Curriculum Integration***

Planning

Describe how your consortium developed a plan to provide support services and counseling within an integrated curriculum.

Describe the unique characteristics of the support services and counseling services selected that resulted from the consideration of curriculum integration in Tech Prep programs.

The planning process for the provision of support services and counseling regarding the integrated curriculum went hand-in-glove with the planning for the integration process. With the overall aim of promoting the integrated curriculum, most consortia placed a strong emphasis on including counselors from local school sites in the planning process for integration. This involvement of counselors resulted in links with local business and industry, such as industry representatives speaking to groups of counselors, counselors touring local business, and, in general, providing avenues for input from local industries in the planning process for integration. A second theme in the planning process was a strong emphasis on systematic career planning efforts in combination with raising awareness of the newly integrated curricula. Third, counselors often were seen as providers of the critical linkage between consortium-based planning efforts and local staff, students, and instructors. In this role, counselors provided input from the member schools to the consortium, but also conveyed information about integration planning from the consortium to their schools.

Implementation (What was actually done?)

What unique student support and counseling services were adopted to accommodate an integrated curriculum in your consortium?

Many consortia developed and distributed written information about the integrated curriculum, such as brochures, handbooks, and student guides that contained details about Tech Prep, provided graphics that illustrated the results of the integration process (matrices of articulated classes), and provided guidance for course planning. In one instance, the consortium had developed a guide with a planned and recommended sequence of courses for the four year Tech Prep curriculum and included both articulated and applied courses at both levels, secondary and post-secondary. Other consortia used students career portfolios, career fairs, advisor/advisee programs, and career centers and assessment software to counsel and guide Tech Prep students. In general, the role of counselors was described as critical to spreading the word about Tech Prep to students, parents, and instructors, identifying potential Tech Prep students, and providing detailed information about the programs and course/career options.

Continuous Improvement

How were you able to determine if the support and counseling services you implemented in light of curriculum integration were appropriate? What data did you collect?

How are you using this information to improve Tech Prep-related support services and counseling in the schools in your consortium?

Several consortia indicated that curriculum integration was still in its initial stages and, therefore, little data had been collected to date. Other consortia emphasized the role of enrollment statistics as indicators of successful support and counseling activities. Many had collected informal feedback from counselors, students, parents, and instructors, and used this information to modify the process as appropriate. A number of consortia had identified specific areas that needed improvement. These included the need for additional applied academic courses, improved communication flow between consortium leadership and local schools, better career planning approaches and instruments, and the need for additional resources. One consortium stressed the importance of continuing successful practices, such as monthly counselor meetings, and industry-based field trips.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

*Tech Prep System - **Support Services & Counseling***
*System Activity - **Articulation***

Planning

Describe how your consortium developed a plan to deliver support and counseling services within an articulated curriculum between secondary and post-secondary education.

Describe the unique characteristics of your support and counseling service plans that resulted from the consideration of articulated programs.

In most consortia, high school and technical college counseling staff were involved in the planning and development of articulation agreements at the consortium level. This helped to ensure that any initial skepticism and concerns on the side of the counselors could be addressed and overcome, and that counseling staff understood the details of the articulation process and agreements well. One consortium reported having spent a long time to develop a common vision for Tech Prep articulation with technical college and high school counselors. Another consortium began the planning process by inventorying all high school level courses offered in the consortium in cooperation with the counselors, and identifying those that could be articulated.

Implementation (What was actually done?)

What unique support and counseling service techniques were adopted to accommodate an articulated curriculum in your consortium?

The consortia used a variety of ways to accommodate articulated curricula and ensure that information about articulation is available to students, parents, instructors, and counselors. All consortia developed and distributed written information about articulation. This included registration handbooks, curriculum guides, Technical Career Guides, and information sheets with descriptions of career paths. Inservices for counselors were also used frequently. One consortium distributed copies of all signed articulation agreements to counseling staff, another

had developed career and academic planning materials for students and parents. Several consortia reported organizing special events, such as career days and field trips by secondary students to the technical college. Many consortia stressed the importance of keeping counselors and students well informed of any new articulation agreements or changes within already existing agreements.

Continuous Improvement

How were you able to determine if support and counseling services you implemented in light of an articulated curriculum were appropriate? What data did you collect?

How are you using this information to improve your support and counseling systems in relation to curriculum articulation?

Few consortia reported specific activities designed to determine the effectiveness of counseling services in implemented articulated curricula. Several indicated the collection of informal feedback and concerns. Others reported that they evaluated the effects of counseling in light of enrollment trends in Tech Prep. There were several areas of concern that consortia tried to address. They included improving the flow of information and communication to counselors to enable them to provide better services to students and parents; increasing the understanding of students and parents regarding articulation through improved communication; and the need to work more closely with community colleges within their consortium. One consortium reported initiating processes to review course work completed in neighboring consortia for transfer to its own system.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Support Services & Counseling***
System Activity - ***Partnerships***

Planning

Describe the process your consortium used to develop a plan for ensuring that all stakeholders were included in the design of Tech Prep support and counseling services.

Describe the activities your consortium selected to guarantee the participation of stakeholder groups in the planning and implementation of support and counseling services in your Tech Prep programs.

All consortia emphasized the importance of involving a broad range of stakeholders in the planning of Tech Prep in general, and for student support and counseling in particular. Consortia sought to actively involve all member schools, counselors, instructors, staff, students, parents, community members, other community- based institutions and, most importantly, the business and industry communities. To this end, invitations to meetings, Tech Prep dinners, open houses, and other events were distributed. In several cases, the consortium members and school staff conducted on-site visits and field trips to local business and industry sites and invited business representatives to their sites. Other consortia invited business and industry leaders to present to their staff. The purpose was to gather input from all stakeholders involved, strengthen their commitment and buy-in, and improve the quality of the planning process. Many consortia also stressed their effort to disseminate information about the progress of planning activities to a wide audience in order to encourage further participation and keep communication channels open.

Implementation (What was actually done?)

Describe how members of stakeholder groups were actually included in the design and implementation of support and counseling services.

Stakeholder groups participated in the design and implementation of support and counseling services at regularly scheduled planning and review meetings at the consortium and district or school level. They played an active part in events such as career fairs, career awareness activities, and open houses. They were involved in the design and development of written information such as brochures and guidelines. They further took part in many inservice events, either as participants or as presenters.

Continuous Improvement

How did you determine if the inclusion of stakeholders in the design and implementation of support and counseling services was appropriate and successful? What data did you collect?

How are you using this information to improve the contribution of members of stakeholder groups in the support and counseling service activities?

Consortia relied primarily on informal information, such as feedback at meetings or other events. They also tracked the level of involvement in planning, design, and implementation activities, reviewed the minutes of stakeholder meetings, and measured the degree of stakeholder involvement based on the number of presentations, field trips, inservices, and other forms of interaction between stakeholder groups and consortium and district/school staff

Consortia considered the following areas for needed improvement: improvement of the linkages with post-secondary, upgrading the perceived status of Tech Prep programs, increased education of parents and the community regarding the value of technical careers and Tech Prep, and an increased level of interaction and involvement of business and industry.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Tech Prep System - ***Support Services & Counseling***
System Activity - ***Evaluation***

Planning

Describe the process by which the assessment of Tech Prep-related support services and counseling was planned.

Describe the strategies your consortium selected to evaluate its Tech Prep-related support services and counseling.

Tech Prep consortia had included the planning for evaluating support services and counseling in their strategic plan as part of the overall assessment of the effectiveness of the program. The measures and strategies planned for assessment included enrollment and program participation, the high school follow-up systems, including the Tech Prep Identifier form, and the self-assessment. One consortium reported more targeted measures, such as Tech Prep course assessments, student focus groups, and surveys of applied curriculum instructors.

Implementation (What was actually done?)

Describe the strategies your consortium implemented to evaluate the effectiveness of its Tech Prep-related support services and counseling.

Many consortia relied on informal information from counselors, instructors and staff. They used standard assessment strategies, such as the Tech Prep Identifier Forms, High School Follow-up, and the consortium self-assessment. One consortium indicated the use of the career planning survey, and the five year follow-up survey. Other reported using quantitative data, such as the number of students enrolled in Tech Prep, number of certificates awarded, number of special population students participating, and the number of articulation agreements signed. One consortium had evaluated all Tech Prep courses for the past two years.

Continuous Improvement

How were you able to determine if the Tech Prep-related support services and counseling assessment strategies you selected were appropriate? What data did you collect?

How are you using this information to improve the future assessment of Tech Pre-related support services and counseling?

Consortia used the information gathered to further refine and guide the support and counseling services in their member schools.

Minnesota Tech Prep Consortia Evaluation System
1994/95 Cohort Self-Assessment Summary Report

Retrospective - ***Support Services and Counseling***

Planning

What processes worked best for your consortium during the planning phase of designing and selecting Tech Prep-related support services and counseling strategies?

The processes that worked best for consortia during the planning phase for support services and counseling was the formation of direct communication links between and among different groups of stakeholders throughout the consortium. This included initial communication and continuous feedback about the planning from students, parents, counselors, staff, instructors, and the community at large. Stakeholders got involved in the planning process through participation on cross-functional teams, and participation in workshops and conferences. Several consortia reported that their decision to present Tech Prep as a high quality option for all students helped gain commitment and enhanced collaborative efforts.

Based on your experiences, what pitfalls would you caution a new consortium about when planning Tech Prep-related support services and counseling?

Many consortia offered the advice to build as broad a constituent base as possible from the start, and caution against moving ahead before consortium-wide commitment is reached. This requires the development of an agreed-upon vision that is supported by everybody. The concept of career development, in particular, needs support beyond the counseling community. Student support and counseling is seen as everybody's job. Several consortia advised to obtain a realistic picture of the resource demands of Tech Prep, and to build appropriate rewards into the system for those staff who participate in extra assignments and tasks. Lastly, Tech Prep planning must be flexible and take into account local requirements and needs, especially in large consortia. One plan never fits all school districts.

Implementation

When implementing Tech Prep support services and counseling, in what areas of activity did you experience the greatest successes? Why?

The degree of commitment and enthusiasm among counselors and other groups at both the secondary and post-secondary levels was cited frequently as one of the key factors that contributed to the success of Tech Prep. Counselor days at the technical college, staff networking, Tech Prep entry and exit counseling at both the secondary and post-secondary levels, and initiatives such as Tech Prep portfolios and career education curricula attested to the successful collaboration within specific consortia. Other successes included the level of interest in information regarding Tech Prep. There was a great demand for written information, such as brochures and information about career pathways. Lastly, extensive inservices and continuous information flow contributed to the availability of accurate and up-to-date counseling services to students.

Describe the three of four greatest difficulties you encountered in setting up support services and counseling for Tech Prep programs?

The most frequently cited difficulty concerned the attitude of students, parents, and even counselors about Tech Prep as an inferior alternative to an academic education. This led to initially low enrollments in newly developed Tech Prep classes in some consortia. Secondly, the lack of adequate funding, administrative resources, and leadership support impeded the progress of Tech Prep in several consortia. Lastly, counselors often lacked appropriate labor market information to be able to advise students appropriately.

Continuous Improvement

Which areas of activity during the design and implementation of Tech Prep support and counseling service systems were the easiest to improve? Please explain why you think they were?

The level of cooperation and communication among different levels within a given consortium was most easily improved in many consortia. This took the form of involving teachers and parents in career planning, and facilitated changes in the curriculum and the development of integrated courses, especially when the changes affected elective parts of the curriculum. Counselors were, in general, full of support and enthusiasm, and promoted Tech Prep in many different ways.

Describe the areas you found most difficult to improve in Tech Prep support and counseling services. Please explain why you think they were.

The most frequently mentioned area of difficulty concerned the image of Tech Prep and the negative attitudes against it. Parents, the community, and even the administrative structure of many schools still appear to favor an academic track over Tech Prep. A second difficulty was the lack of sufficient resources, the scarcity of release time for staff, and the attitude that Tech Prep was "just one more thing to do".

Section III

Minnesota Tech Prep Consortia Evaluation System

Results of Peer Brainstorming Session

MN Tech Prep Consortia Evaluation System
Peer Brainstorming Session
January 8, 1996
9 a.m. - 12:30 p.m., R 380 VoTech Education Building,
University of Minnesota, St. Paul Campus

Present:
Representing Mid-Minnesota Tech Ed Consortium:
Dennis Schroeder
Representing Central Minnesota Consortium:
Steve Morgan
Representing Oak Land Vocational Cooperative:
Dick Young
Ginny Karbowski
Representing Minneapolis Public Schools:
Joan Wilcosz
Representing St. Paul Tech Prep:
Nick Waldoch
Representing Mines and Pines Tech Prep Consortium:
Kathy Sterk
Representing Intermediate District #287:
Marilyn Cook
Representing Southwest/West Central ECSU:
Kim Lippert
Representing Red Wing/Winona TC:
Delores McGillivry

Representing the MRDC:
Jim Brown, Professor and Director of MRDC, Department of Vocational and Technical Education
Dave Pucel, Professor and Head of Division of Industrial Education, Department of Vocational and Technical Education
Stephan Flister, Research Assistant
Peter Kuchinke, Research Assistant
Representing the Minnesota Department of Children, Families, and Learning:
Tom Ryerson, Specialist-Tech Prep/Industrial Technology
John Sedey, Project Systems Manager
Representing Minnesota State Colleges and Universities:
Duane Rominger

Not represented:
North Country Vocational Cooperative, Bemidji

Summary

Representatives from nine of the ten consortia that had completed the self-assessment in 1995, representatives from the Minnesota Department of Children, Families, and Learning, Minnesota State Colleges and Universities, and the Minnesota Research and Development Center for Vocational Education (MRDC) participated in a peer brainstorming session conducted by the MRDC, the third party evaluator of the Minnesota Tech Prep System.

The session was designed to–

- check the accuracy of the MRDC Self-Assessment Summary document,
- review the status of each consortium's Tech Prep activities with a peer group benchmark,
- share successful and unsuccessful practices to inform peers and new consortia, and
- provide feedback to the MRDC on the Self-Assessment Summary and Report processes.

The results of the session have been incorporated into this final Self-Assessment Summary Report and distributed by the MRDC.

Drs. Brown and Pucel conducted the session by discussing the seven activities included in each of the four Tech Prep Systems. The session was structured to allow participants approximately ten minutes to re-read the particular section of the self-assessment summary report, and then to brainstorm ideas about best practices and areas for improvement.

The following is a verbatim transcript of the ideas, issues, recommendations, and concerns raised by the participants and captured on wall-charts during the session. Comments are organized by System Activities within each Tech Prep System.

CURRICULUM AND INSTRUCTION

Overall Planning

1. Implementation of proposed concepts was sometimes difficult, due to lack of understanding of proposed items.
2. Periodic sessions (annually?) with stakeholders would be useful to clarify understanding of Tech Prep.
3. Contact persons are in danger of being given too much responsibility in evaluation process.
4. Superintendents often interested only in getting their fair share of Tech Prep monies.
5. Key administrators are often unaware of key goals/obligations.
6. Principals often did not think Tech Prep money justified evaluation process, especially in large consortia with many districts.

Staff Development

1. Succeeded in sites committed to systemic change efforts (comprehensive school reform.
2. Call upon external resources, including practitioners that have good credibility in training efforts.
3. Staff development is a long-term, on-going process.
4. Staff turn-over issue must be addressed.
5. Arrange for networking opportunities of new and experienced staff.
6. Integration topic needs groups greater than ten participants.
7. Sell staff development idea to principals first.
8. Arrange for job shadowing of business jobs for K-12 staff.

Curriculum Integration

1. Block-scheduling for students and teachers (academic and vocational in one block.
2. Standards-driven model with integrated academic, SCANS, vocational competencies.
3. Thematic instruction.
4. Extensive exposure to real examples of integration in business and industry.
5. Support attendance at national integration workshops (SREB).

Special Populations

1. Special population issue confusing, some assume Tech Prep is geared solely toward special students.
2. Some sites focus on LEP populations and implications for multi-language instruction/public relations.
3. What changes need to be accomplish to show that Tech Prep is inclusive, for all students?
4. How to balance special needs access and special needs focus?
5. Focus on building's counselors (special needs emphasis) participating in training.
6. Questions around definition of special populations, select sites that are positive/inclusive.
7. Include gifted students under definition of special population.

Articulation

1. Discussions between high school and post-secondary instructors clarified the similarities between the two.
2. Develop an official statement of administration to support articulation.
3. Offer joint workshops.
4. One person needs to be responsible for articulation.
5. Develop an overall plan for future articulation.
6. There is an 80% match between high school and postsecondary instruction, a good base for articulation.
7. The big picture needs to be clear and must include career articulation.
8. Articulation might include the elimination of post-secondary remedial courses.

Partnerships

1. Partnerships among institutions in the area successful, multi-consortia partnerships emerging.
2. Industry input to curricula: discussions, staff site visits, school-site visits (difficult to do).
Expanded advisory board agenda, see bigger picture.
3. Broad occupational standards approaches to key stakeholders, industry-standard driven.

4. Tech Prep has caused partnerships between secondary/postsecondary and secondary/secondary to emerge where none existed before (perspective building, curriculum sharing, etc.).

Evaluation

1. Career development needs to be a key focus.
2. Knowing evaluation criteria ahead of time is helpful.
3. Lack of information re: formal evaluation techniques, technical assistance is needed.
4. Persons reporting were often very honest and provided valuable information.
5. Staff continuity is necessary to complete the evaluation process.
6. Need hard data, such as performance on standardized tests.
7. Compare Tech Prep student achievement with other groups, do longitudinal research.

MARKETING

Overall Planning

1. Successful in getting secondary math and science teachers to sell Tech Prep to their students.
2. Involve counselors in High School Follow-up, share information, they are now more willing to listen.
3. Parents still represent an unconvinced audience.
4. 2+2+2 is a sellable product, not a dead end.
5. Demonstrate the multiple options of a Tech Prep track.
6. Printed materials, such as Tech Prep catalogues, are effective and beneficial, especially when they show Tech Prep pathways (grades 9-12, 13-14), job opportunities, course, transfers, etc.
7. Stress MNSCU transfer curricula.
8. Assure secondary students that they are not facing extra developmental postsecondary courses.
9. Develop benchmarks for all secondary students completing Tech Prep programs.

Staff Development

1. Marketing processes need to involve input and effort by all stakeholders in the community.
2. Multiple and frequent messages about value of Tech Prep need to be delivered to have an impact.
3. Efforts at levels higher than consortia needed (state policy, legislation).
4. Need to work one-on-one with entire staff.
5. Work with those who are potentially interested, never work at a single level exclusively.
6. Tie discussion about Tech Prep directly to education reform.
7. Seek district-wide support and visibility.
8. Use success stories to help explain program and its benefits.
9. Provide sufficient information about Tech Prep prior to site visits.
10. Use business testimony to present intake processes and expectations.
11. Discuss desirability of a state-wide staff development conference.
12. Share examples and best practices among consortia; develop showcase of good Tech Prep stuff.

13. Develop strategies to strengthen program and proceed with implementation during Congressional budget turmoil.

Curriculum Integration

1. Use of business and industry sales and technical people to show how subject knowledge is integrated with job duties.
2. Use business representatives to show students the application of knowledge in varying settings.
3. Emphasize performance-based curriculum integration (process/instruments).

Special Populations

1. Emphasize importance of marketing Tech Prep to special populations to counselors, encouraging them to focus on areas such as gender equity.
2. Issue policy statement regarding equal access.
3. Emphasize that Tech Prep is for all students.
4. Produce multi-language marketing materials.
5. Stress importance of K-16 career development process for everyone.

Articulation

1. Tech Prep programs are not "dead end".
2. Important roles of certificates for articulated courses; send certificates directly to parents, stress savings in post-secondary tuition, fees, and time.
3. Instructors' enthusiasm is critical.
4. Mail out copies of articulation agreements to inform and sell idea to instructors.
5. Give administration data about the number of certificates awarded. Send "thank-you" notes to instructors.

Partnerships

1. Business representatives visit schools and speak about the value of integration.
2. Brochures to counselors on career planning in secondary and postsecondary.
3. Multi-consortia/district collaboration in staff development.
4. Get employers to support Tech Prep among their employees.
5. Match $$ with community partners re: community-wide efforts; emphasize role of Private Industry Councils.

6. Prepare to receive $$ thorough multi-sectoral partnerships.
7. Need for state-wide school-to-work systems.

Evaluation

1. There is little evidence of marketing activities, too early for many consortia.
2. Evidence of need for data comes from staff requesting more materials and information.
3. Evaluation of marketing needs to be ongoing, not a one-time effort.
4. Evaluation needs to go beyond local level and include state agencies/staff.
5. Compare and contrast multiple communities' efforts and outcomes.

STUDENT ASSESSMENT AND EVALUATION

Overall Planning

1. Joint K-12 and Community/Technical College staff planning efforts are desirable.
2. Emphasis on moving to authentic assessment.
3. There is a need for instructors to have authority to identify goals/criteria/performance levels and to determine student levels.
4. A policy decision is needed whether to focus on vocational or integrated academic curricula.
5. Offering of developmental courses at the post-secondary level without application to Tech Prep programs; strong academic foundations are required of everyone.

Staff Development

1. Authentic assessment is emerging as an emphasis.
2. Student assessment is one of the weakest components of the curriculum, this became apparent with the Graduation Rule.
3. Educators tend to assume that assessment focuses on "in-class", not on career outcomes in the 'real world'.
4. Consortia are attempting to integrate authentic assessment with Graduation Rule efforts (requires low level articulation..

Curriculum Integration

1. Performance assessment
2. Exploring applying ASSET test to see what remediation is needed. This can have important implications on needed services.
3. Need State Committee discussion and decision over use of ASSET or ASAP.

Special Populations

1. Concern about Graduation Rule meetings regarding: What students leave school with/without.

Articulation

no comments

Partnerships

1. Too early in some Tech Prep programs to be relevant.
2. Periodic meetings to discuss students' school-to-work performance with business and industry reps, supervisors, and students
3. Considering getting employers' entrance exams to see how students perform on exams.

Evaluation

no comments

SUPPORT SERVICES AND COUNSELING

Overall Planning

1. Be sure to include support services staff in planning process.
2. Clarify and communicate various staff groups' responsibilities.
3. Counselors are often caught in the middle.

Staff Development

1. Change counselors' mindset regarding occupational opportunities for Tech Prep graduates, encourage them to spread the word.
2. Broad base of target population very important.
3. Content must be real world relevant.
4. Give staff a clear understanding of Tech Prep concepts prior to their interactions with business personnel and vice versa.
5. Orientation to training recipients and training providers.
6. Use time efficiently, pulling staff from classrooms is difficult.
7. Building-level activities seem to be more appropriate than district-wide activities.

Curriculum Integration

no comments

Special Populations

1. Keep staff well-informed.
2. Communicate types/eligibilities for services available.
3. Clarify roles of case managers for special Ed students.

Curriculum Integration

1. Support services personnel are consistently involved in Tech Prep processes, especially in curriculum integration.
2. Broad approach to school-to-work transition processes needed (beyond special education).

Articulation

1. Support staff must be knowledgeable of articulated courses.

Partnerships

Ensure presence of critical members in group meetings.

Evaluation

1. Not a high priority yet.
2. Field trips provide informal feedback re: Postsecondary programs.

The following represents the results of a final feed-back segment at the end of the session. Participants were asked for overall comments regarding the assessment and Tech Prep.

1. The assessment process forces the consortium to focus on areas that might have otherwise gotten overlooked.
2. The summary report has high face validity, consortium representatives find their own experience accurately reflected in the report.
3. There is a need to define Tech Prep within the larger context of education reform on the state and national level.
4. There is a need to determine the benefits of Tech Prep to the overall education system in Minnesota.
5. Staff development is a critical issues, and needs to occur ongoing and continuously, especially in light of staff turnover.
6. Involvement by school principals is critical.
7. There is growing evidence of partnerships among consortia, the formation of "superconsortia".
8. There is a need for a state-wide vision for Tech Prep, such as the Florida example.
9. There is a need for longitudinal research on the labor market experience of Tech Prep graduates.
10. Marketing for Tech Prep needs to also occur system-wide, possibly through state-wide showcases of best practices at a Tech Prep fair.